DOCUMENT RESUME

ED 368 376 IR 054 943

TITLE	Council on Library Resources, Inc. Thirty-Seventh Annual Report/1993.
INSTITUTION	Council on Library Resources, Inc., Washington, D.C.
REPORT NO	ISSN-0070-1181
PUB DATE	93
NOTE	64p.; For the 34th annual report, see ED 351 015.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Accountability; Annual Reports; Demography; *Economic Factors; Financial Support; Futures (of Society); Global Approach; Information Literacy; *Libraries; Library Automation; Library Development; Library Planning; *Library Role; Problems; Program Development; Program Evaluation; Program Implementation; User Needs (Information)
IDENTIFIERS	*Council on Library Resources

ABSTRACT

The Council on Library Resources was created to address the problems of libraries and is now committed to the most significant library problem of all, ensuring that library resources are embraced as part of the solution for people who seek to solve their own problems and those of their communities and institutions. In this annual report, the Council assesses the environment in which it and the libraries it serves must operate as characterized by: (1) a switch to a service-based society, (2) an increased emphasis on accountability, (3) the changing demographic makeup of the United States, (4) increasing globalization of institutions, and (5) a troubled economy in the United States and worldwide. The annual report describes both completed and initiated programs in the Council's program areas (human resources, economics, infrastructure, access/processing) as it gives a picture of current activities. A special insert, "Shaping a Foundation for the Future," by Robert Gurwitt, examines these unsettling times for libraries. The organization's financial report includes breakdowns for various projects. (SLD)

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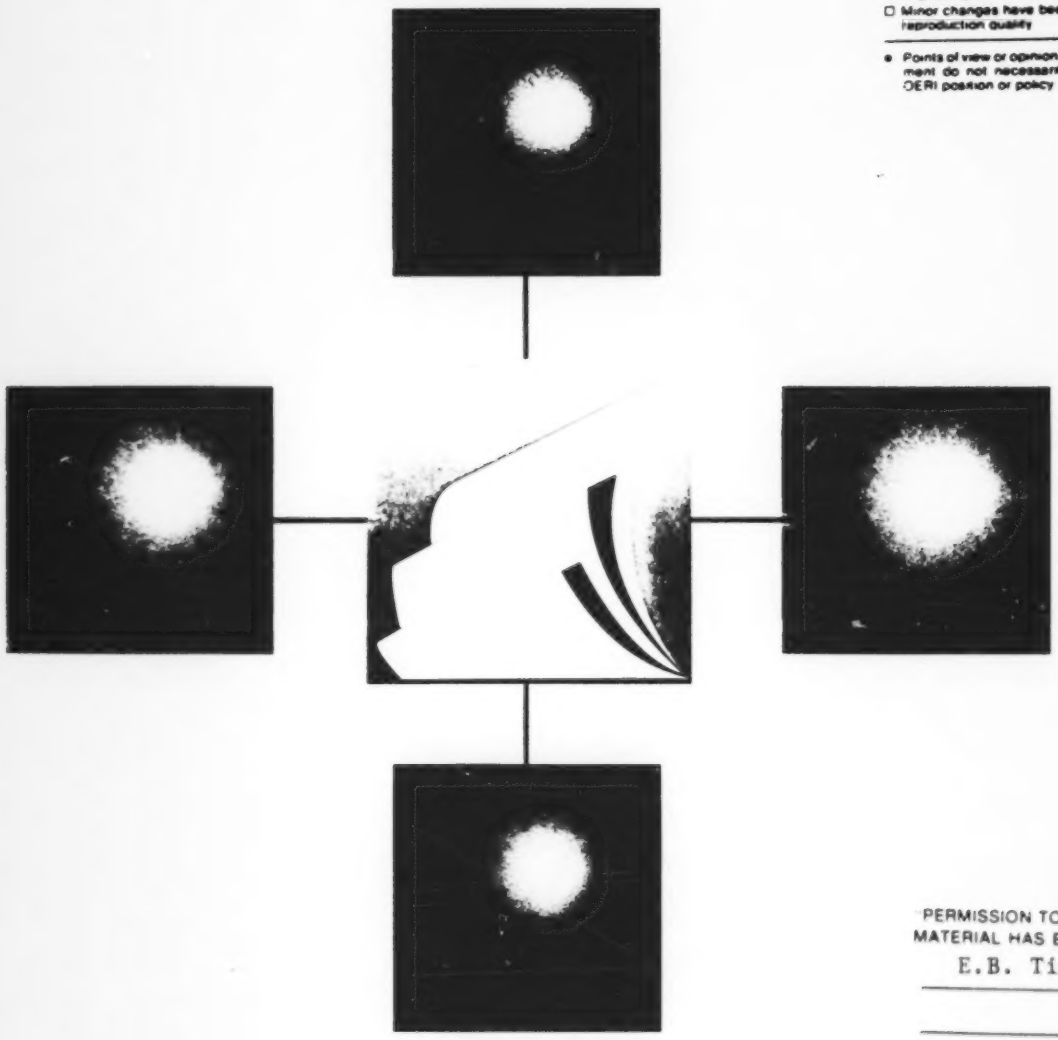

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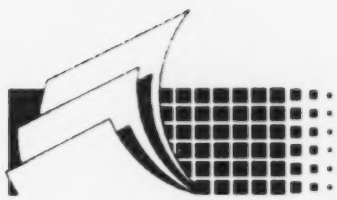

COUNCIL ON LIBRARY RESOURCES, INC.
THIRTY-SEVENTH ANNUAL REPORT 1993

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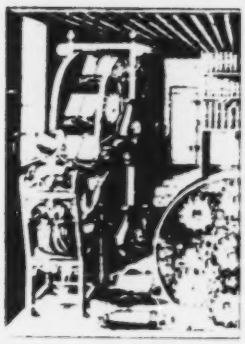

The scholar at his book-wheel is a reproduction of an engraving in Agostino Ramelli's *Le diverse et artificiose machine*... Paris, 1588. It first appeared in the Council's third annual report, with the following explanation: "the picture symbolizes the interest of the Council on Library Resources in both the content of books and the mechanics of library service." The engraving has appeared in each annual report since that time.

This 37th Annual Report has been designed and set in Rotis Serif by Balmar Printing and Graphics and printed by Todd Allan Printing.

The paper used in this publication meets the minimum requirements of American National Standard for Information Sciences–Permanence of Paper for Printed Library Materials, ANSI Z39.48-1984.

Library of Congress catalog number 58-915//r85
ISSN 0070-1181
Key Title: Annual report–Council on Library Resources, Inc.

The Council on Library Resources moved in May 1993 to:
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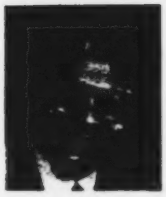

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1. Elected at the May 1992 Directors' meeting.

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2. Elected at the November 1992 Directors' meeting.
3. Until November 1992.

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ACKNOWLEDGEMENTS

The following foundations were among the supporters of Council activities during 1992/1993. All deserve the thanks of the library community.

The J. Paul Getty Trust

The William and Flora Hewlett Foundation

The W. K. Kellogg Foundation

The Andrew W. Mellon Foundation

CHAIRMAN'S MESSAGE

This past year has been a challenging one for libraries. The increasing demand for services creates overloaded staff. The increasing costs for materials strain decreasing budgets. An increasing number of technological methods of managing information calls into question the role of the library as the primary information provider within the community it serves. The increasing array of formats in which information can appear complicates the means by which libraries gather information and make it available.

At the national level, there is attention to the development of an "information highway" and to "digital" libraries, while at local levels, libraries are reducing hours, cutting staff and services, and, in some cases, closing doors. While knowledge workers are heralded as necessary to the future in this increasingly information-intensive age, our library schools continue to be dismantled.

The Council's broad mandate, "to address the problems of libraries," presents us with ample challenges. In this current, complex environment, we must find a way to make a difference; we are limited only by our financial resources. The Board of Directors has worked closely with our president during the past year to sharpen our focus and to evaluate strategies to assure the continued contribution of the Council to libraries and to the broader society they serve.

Maximilian W. Kemper

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PRESIDENT'S MESSAGE

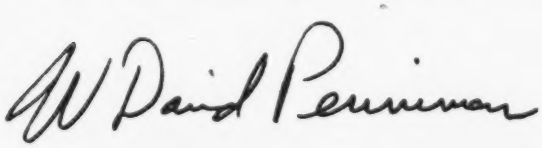
As our Chairman has observed, there are many challenges facing both the Council and the library community it serves. A changing environment is causing all of us to rethink our roles, structures, and focus. To help us with this task, the Council has been holding meetings of individuals associated with research libraries and urban public libraries, along with library educators. The resulting discussions and our assessment of them confirm the need for vision, leadership, and organizational planning to help the library and information services profession play a more proactive role in the information age.

The task before the Council, and the library community in general, is to demonstrate that libraries are crucial to the survival of a democratic society. This is not a simple task. Most sources of funding often do not see the direct connection between their own agenda and the role of libraries. Those who do understand are already stretched thin by more requests than they can fulfill.

At the same time, new technology appears to offer ready access to vast amounts of information, but there are serious barriers that must be overcome if the "digital libraries" now spoken of so often are truly to serve society and not just a technically elite few. Research is needed to address the significant array of problems that create barriers to ready access to the information in our nation's libraries. Such barriers can be technical, economic, organizational, or sociopolitical.

The Council's programs are dedicated to assuring that these barriers are understood and minimized. This year's annual report contains more than details of our current programs, however. It also contains a special insert concerning the history of the Council and its contributions to the library community and society in general. This information, we believe, demonstrates the major influence one organization can have on our nation's information infrastructure, despite relatively limited funding support.

The Council was created to address the problems of libraries and is now committed to the most significant library problem of all—ensuring that library resources are embraced as part of the solution for people who seek to solve their own problems and those of their communities and institutions. In the coming year, the Council must demonstrate clearly its relevance as a means to solve problems, just as libraries must.



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PROGRAM REVIEW

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OVERVIEW

When the Council on Library Resources was created in 1956, its purpose was stated broadly: "to aid in the solution of library problems." Indicative of the influence that funding sources can have on the Council or any other organization, the general objective expressed in the charter was further specified by the Ford Foundation initiating grant to be "for the purpose of aiding in the solution of the problems of libraries generally, and of research libraries in particular." Other modifications of the purpose resulting from the initiating grant related to the conduct of research and development, and added to the Council's role "making grants to other institutions and persons for such purposes; and providing leadership in, and wherever appropriate, coordination of efforts (1) to develop the resources and services of libraries and (2) to improve relations between American and foreign libraries and archives."

As the Council's chairman stated in his message in last year's annual report, an analysis of the complex environment in which we operate today indicates that today's "library problems," such as shrinking budgets and rising costs, are a subset of larger societal problems. The institutions that libraries serve (e.g., universities, communities, schools, government agencies, and corporations) continue to face economic and sociopolitical challenges of an unprecedented nature. Foundations that traditionally have funded library programs and research have turned to broader societal issues of poverty, health care, urban decay, racial discrimination, failing educational systems, and deteriorating infrastructure, as well as international challenges.

The Council's assessment of the environment in which it and the libraries it serves must operate includes:

- **A switch to a service-based society**

Organizations are focusing on customer service even though they may still manufacture goods—often in other countries. Other institutions, including universities and other not-for-profit organizations, are beginning to view themselves in this service-based environment from a business viewpoint.

- **An increased emphasis on "accountability"**

Institutions are being challenged to measure their performance in explicit ways. Institutions that were previously supported routinely are being asked to demonstrate their worth.

- **The changing demographic makeup of the United States**

The shift toward increased cultural diversity has major implications for the work force in the information service arena as well as the user base it will serve.

- **Increasing globalization of institutions**

Countries, industries, and key social institutions are no longer operating in isolation. East and West are meeting in the marketplace as well as in political forums.

- **A troubled economy, both in the United States and worldwide**

Some of our nation's most vital institutions are having to rethink their levels of spending. At the same time, global economics is playing an increasingly important role as we see the fragmentation of Eastern Europe, the unification of Western Europe, and the continuing emergence of the Pacific Rim as a major economic force.

The trends for the Council's traditional academic audience include a decline in the college-age population, an impending shortage of Ph.D.-trained faculty, curriculum changes, greater emphasis on and new approaches to teaching, cost control and program redesign due to limited resources, more focus and selectivity in academic programs, and new ways of publishing and evaluating scholarly work. This last trend is the focus of a report from the Andrew W. Mellon Foundation, *University Libraries and Scholarly Communication*,[2] which contains a wealth of information on the state of research libraries today and the electronic possibilities of tomorrow.

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[1] *Council on Library Resources, Inc., FIRST ANNUAL REPORT (Washington, D.C., 1957), 5.*

[2] *Anthony M. Cummings, et al., UNIVERSITY LIBRARIES AND SCHOLARLY COMMUNICATION: A STUDY PREPARED FOR THE ANDREW W. MELLON FOUNDATION (Washington, D.C.: The Association of Research Libraries for The Andrew W. Mellon Foundation, November 1992).*

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These trends and the need for libraries to be able to respond to them in new ways were underscored during the year as the Council held focus group sessions for research librarians and urban public librarians. The session participants identified the role of the library, financing and accountability, technology, and adaptation to change as major areas of concern. Each of these topics can be addressed by one of the Council's program areas: adaptation to change is a human resource need, financing and accountability are included in economics, infrastructure addresses the role of the library, and technology is an important component of our access and processing area.

For the Council on Library Resources to address its original purpose, we must continually respond to this changing environment. We must relate the activities of libraries and librarians to the urgent problems of contemporary society, not as another problem, but rather as institutions and individuals capable of providing solutions to broader societal issues. For us, and for many foundations, an implicit goal is to develop self-sufficiency among the communities, groups, and individuals we seek to help. Self-sufficiency in this context means the capability to address long-term problems on one's own without continued intervention.

The overall goals of the Council are to help libraries embrace a forward-looking mission and vision and to help foundations see a close relationship between their objectives and the objectives of the libraries of the future. The Council's four general program areas—human resources, economics, infrastructure, and access and processing—not only have allowed us to address these goals, but also have provided the framework in which previously committed projects have been classified and new projects have been initiated. These programs have been defined broadly enough to provide flexibility, but narrowly enough to focus attention on specific needs in the emerging information service arena.

The report that follows describes both completed and initiated projects in the Council's program areas, and provides a picture of the Council's current activities. Reports on research funded in previous years are also included in this overview. Full citations to the works referenced appear in the bibliography beginning on page 30; current projects are listed in the section beginning on page 36, Grants and Contracts Active in Fiscal 1993.

HUMAN RESOURCES

Throughout its history, the Council has supported efforts to improve the skills of the individuals who direct and staff libraries and information service systems. The current human resources program is intended to develop leaders on a continuing basis who can build and manage the information support systems needed by society and to assist current leaders in developing the skills needed to transform their institutions in response to changing societal needs. This program area emphasizes leadership and management development, recruitment, education, and research.

Leadership and Management Development

Academic Library Management Intern Program

Two interns participated in this long-standing Council program in 1992-93, bringing to fifty-five the total number of librarians who have honed their management skills by spending an academic year with the director and senior staff of a large and well-managed library. Heather Gordon served her internship with Jerry D. Campbell, University Librarian at Duke University. Judy McQueen interned with Richard De Gennaro, Roy E. Larsen Librarian at Harvard College.

Although the intern program has been very successful since its inception in 1974, as witnessed by the fact that a large percentage of former interns hold directorships or senior administrative positions in major academic libraries, the Council has decided to suspend it indefinitely after the 1992-93 academic year. Evaluation has suggested that there may not be the same need for this kind of program as there was twenty years ago, and that there may be alternative ways of preparing future administrators that would allow greater numbers of people to participate for a similar investment of financial resources.

ACRL/CLS College Library Director Mentor Program

In June 1992, the Council awarded a grant to Eckerd College to cover initial costs, for a two-year period, of a program designed to enhance the leadership capabilities of newly appointed college library directors, many of whom have never served in positions that directly prepare them for leadership in a college library. The program was developed

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by the Leadership Committee, College Libraries Section, of the Association of College and Research Libraries and was coordinated by Larry Hardesty of Eckerd College.

New directors participating in the program are matched with experienced college library directors, who act as their mentors or peer consultants. Nominations for participation in the program come from new directors themselves or from academic deans who have recently hired new directors. CLR funds support campus visits between each pair of individuals, telephone communication, and a three-day seminar at the end of each year for the new directors.

Fourteen first-year directors participated in the program during the 1992-93 academic year. In general, the relationships were very productive, helping to counter the isolation from peers that many new directors feel, and contributing a new perspective to the experienced library directors. Support for this program from academic deans has been positive as well. The first year ended successfully with a three-day seminar held at Loyola University in New Orleans prior to the annual American Library Association meeting in June.

Library and Information Studies Curricula

Education for Diversity

The Council made a grant this year to the Graduate School of Library and Information Studies at Queens College/CUNY to conduct a series of four seminars/workshops centered around multiculturalism and diversity in the work place. Although the school has a major commitment to diversity—as represented by the composition of its student body, availability of fellowships, and courses offered—faculty feel that they do not know enough about issues related to multiculturalism. The intent of the workshops is to draw on resources of the metropolitan New York community to identify primary areas of concern relating to the topic. This activity will contribute to new strategies for redesigning the curriculum in order to provide improved services to a multicultural audience. Two seminars were conducted during the 1992-93 academic year; the remaining two are scheduled for the fall of 1993.

Knowledge and Skills for Health Information Professionals

Changes in the health information environment have presaged significant changes in the knowledge and skills expected of health information professionals in the future. However, there is little research on which to base judgments about what general areas of expertise are likely to be required. Fred Roper, Dean of the College of Library and Information Science at the University of South Carolina, and Chair of the Medical Library Association (MLA) Knowledge and Skills Task Force, was principal investigator of a 1990 grant intended to assess the present level of specific knowledge and skills among health science librarians and their perceptions about requirements for the future. The report of the survey was completed in the fall of 1992.

The report proved influential. An MLA educational policy statement, *Platform for Change*, adopted by its Board of Directors in December 1991, is a major by-product of the survey. Its implementation is considered an MLA priority. The *Platform* describes the needs for lifelong, interdisciplinary learning for the field, anticipates that the amount of health care information will continue to grow exponentially, and predicts that health care will be one of the nation's most critical information issues. Using the results of the survey, the Knowledge and Skills Task Force of MLA developed a comprehensive plan for education for health information specialists throughout an individual's career, including a strong continuing education role by the Medical Library Association and the National Library of Medicine (NLM). NLM is currently using the results of the research in a planning panel it has established to consider education and training.

Future of Education for Librarianship

The Council contracted with the Palmer School of Library and Information Science, Long Island University, to survey the relevant literature and prepare an annotated bibliography and report synthesizing emerging trends-and concepts in library and information science education. The results will be used to facilitate CLR planning for projects and programs in our human resources area.

Strategic Visions

The Council's 1992 annual report described the formation and initial meetings of the Strategic Visions Discussion Group, formed by a group of librarians interested in the role of the librarian and the library of the future. A draft vision statement and a discussion draft of the values and qualities

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of librarianship that will be desirable in the next century were generated during the first year.

Susan Martin described the group's formation in the proceedings of the 1992 President's Program of the Association for Library Collections and Technical Services. With its September 1992 issue, the *Journal of Academic Librarianship* established a regular "Visions" column to address the coming changes for libraries and the profession itself. In the first column, Don Bosseau and Susan Martin provided some background on the strategic visions group. The Palmer School of Library and Information Science, Long Island University, used Strategic Visions documents and members of the Strategic Visions Group to facilitate the planning process as part of its reaccreditation effort.

This year, discussions continued at the national and local levels and were assisted by the operations of an open listserv connection for the Strategic Visions Group. The electronic mail facility, established at San Diego State University, generated over 1,000 messages among its 348 subscribers in the first year of operation.

Research Reports

Recruitment, Job Classification, and Promotion in Libraries

Recruiting and retaining qualified students interested in library and information science is of paramount importance to the profession. Over the years, a relatively high percentage (1.7 percent) of graduates of Earlham College, a four-year liberal arts college in Richmond, Indiana, have become librarians, a percentage about six times the national average for undergraduates. Evan Farber conducted a survey of the Earlham graduates who became librarians to determine why they made their decisions to pursue training for the profession. The most influential factors were "experience using the library at Earlham" and "relationship with a professional librarian at Earlham." It is useful to be reminded of the connection between Earlham's high recruitment into the profession and the fact that its library staff have been leaders in developing bibliographic instruction for students and in promoting integration of the library into the undergraduate curriculum.

Ellen Altman and Patricia Promis investigated the extent to which equal opportunity and affirmative action guidelines have affected recruitment and promotion for the groups covered by those regulations to management positions in academic libraries. The study concluded that the gender and ethnicity of the candidates finally selected for management positions strongly resembled those of their predecessors. The study found that culturally diverse candidates received equal opportunity: they were hired in proportion to their representation in the applicant pool. There is no statistical evidence, however, that they received affirmative action.

Anne Woodsworth, Theresa Maylone, and Myron Sywak examined whether the converging functions of computing centers and libraries in research universities affected job classification and compensation systems. The results of the study indicated that, when job descriptions of each group are translated into uniform terms, the correlations between library and computing jobs are strong enough to merit considering a single "information job" family in classification systems at organizations that are integrating information technologies. By using this technique, human resource planners can develop a set of factors for job analysis that will articulate the overall information vision and values of each institution, thereby stimulating organizational change.

Library and Information Science Faculty

Two teams of investigators surveyed faculty who teach at schools of library and information science.

Mary Biggs and Victor Biggs reported on a 1988-89 study of full-time faculty at accredited library schools that replicated in methodology an American Council of Learned Societies' (ACLS) 1985 survey of liberal arts faculty in seven social sciences and humanities disciplines. The survey assembled comparison data on the faculties' collegial research relationships, publishing and other scholarly and professional activity, attitudes toward scholarly publishing, scholarly and professional reading, use of libraries, computer use and skills, and overall job satisfaction. The hypothesis was that library school faculty, as members of a "practicing" profession, would possess more sophisticated library-use skills but would be less likely than the ACLS respondents to publish productively or be active professionally as speakers, editors, and referees, and that they would express more dissatisfaction with their professional literature and their jobs. This hypothesis was not supported. As a group, library school faculty reported equal or greater job satisfaction, collegial research relationships, volume of publication and participa-

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tion in publication-related activities, satisfaction with their professional literature, and computer literacy than their ACLS counterparts. The ACLS and Biggs studies are not directly comparable because of the three years that separated them and different methods of selecting subjects. However, the Biggs study reveals general productivity and job satisfaction among library school faculty.

Fay Zipkowitz and Elizabeth Futas reported on a 1989-90 survey of library and information science faculty at U.S. and Canadian institutions to determine the projected future need for replacement faculty. The impetus for the study came from several factors: that students entering the library field tend to be older than students in other disciplines; that library science faculty may have shorter academic careers than other teaching faculty because typically they practice librarianship before teaching it; that there is competition for individuals with Ph.D.s within other areas of the profession; and, finally, that because of shrinking financial resources, academic faculty generally have not been hired to replace senior faculty.

The survey found that the average full-time library science faculty member would be 55 years old in 1993. Sixty percent of faculty indicated, in response to a survey question, that they expected to leave teaching before retiring. Predictive models were used by the researchers to conclude that there will be a serious depletion of faculty in library schools before the year 2001 and that immediate plans should be made to recruit, educate, and retain qualified new faculty.

ECONOMICS

In order to assure that the resources invested in libraries and related information services are allocated effectively to maximize the benefits to society in areas of pressing social need, the Council has been addressing projects that focus attention on the costs and benefits of specific library services. The results from such projects should lead to a more systematic decision-making process regarding allocation of funding and cost sharing. An important component in the economics program is the emphasis on a total quality management or continuous improvement thrust within the library community.

The economics studies completed or initiated this year tended to focus on microeconomic issues, addressing such topics as serial pricing, journal use, interlibrary loan, and public library financing. In addition, the Council continued to encourage the application to library services of continuous quality techniques, a practice borrowed from the business community. Support and encouragement for the development of functional tools for libraries to use to determine their own costs and benefits was also included in this year's economics program. The William and Flora Hewlett Foundation has provided most of the resources for Council activities in the program area of economics.

Serial Pricing

Co-investigators George A. Chressanthis, Associate Professor of Economics, and June D. Chressanthis, Assistant Professor and Serials Cataloger, Mississippi State University, prepared several papers and presentations related to an econometric analysis of the determinants of library subscription prices of the top-ranked economics journals. The research data also generated information on the relationship between manuscript submission fees and journal quality, the effect of exchange rate risk on library subscriptions, and publisher monopoly power and third-degree price discrimination. The significance of the Chressanthis' research is in their comprehensive data set and solid methodology within a specific discipline. Similar studies could be conducted for other disciplines.

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Journal Use

As serial prices continue to rise, decisions to cancel specific titles must take into account the use of individual serial titles by library clientele. Marifran Bustion and John L. Eltinge reported on the relationships among departmental ratings and subscription costs, the academic discipline and departmental ratings, and the academic discipline and subscription costs. While higher-rated periodicals had higher mean and median prices, the investigators concluded that the relationship between cost and relative price increases is complex. Along with John Harer, they also examined the merits of direct observation of periodical usage. Maiken Naylor compared two methodologies for counting current periodical use and identified the limitations of each method.

Major journal use studies are currently being conducted by Columbia University; the State University of New York campuses at Albany, Binghamton, Buffalo, and Stony Brook; and the Triangle Research Libraries Network as part of their strategic planning grant activities (see description beginning on page 21). As part of the larger project, the Research Foundation of the State University of New York was funded to study the non-participation factor of a journal use survey at the Science and Engineering Library at SUNY-Buffalo. Results from all projects are expected by late fall 1993.

Interlibrary Loan Costs

The Council provided partial support for a project to examine the costs to research libraries of interlibrary loan (ILL) services. Data collection was completed for seventy-six libraries on the typical costs of ILL transactions, based on a survey instrument developed by the Research Libraries Group (RLG) and distributed by the Association of Research Libraries (ARL) to collect cost information for 1991 interlibrary loan borrowing and lending operations. The report was prepared by Marilyn M. Roche, Research Libraries Group. The data show that a research library spends an average of $18.62 to borrow a document/article or to purchase a photocopy of the item for a patron, and $10.93 to lend a document to another library. Staff costs represent about 77 percent of the cost for borrowing or lending. The results of the study should help libraries better assess the economics of their own borrowing and lending practices, evaluate alternative methods of providing these services, and analyze the impact of local serials cancellations.

The Council is also providing support for the travel, communication, and office expenses of the ARL Visiting Program Officer, Mary Jackson, to address an ARL initiative to improve interlibrary loan and document delivery services. The results of the ARL/RLG interlibrary loan study point to a need for an ideal interlibrary loan system as proposed in a white paper prepared by Ms. Jackson and Shirley Baker (Dean of University Libraries, Washington University) for the ARL Committee on Access to Information Resources. During her tenure with ARL, Ms. Jackson will follow up on the recommendations in the white paper and will work with libraries and ILL/document delivery system designers to move toward a more comprehensive and integrated system for interlibrary loan and document delivery.

Public Library Financing

A seminar examining the results of a study on public library financing conducted for the U.S. Department of Education, Office of Library Programs, was supported by a 1992 CLR grant to the Urban Libraries Council. Two publications resulted: *Keeping the Book$* summarizes the research and study on exemplary public library financial practices supported by a Title II-B grant and provided some of the background material for the seminar, while *Balancing the Book$* is based on the papers and discussions of the seminar itself.

Costs and Beneficial Impacts of Library Operations

Libraries today must make planning allocations concerning both new and old modes of access to information. Included in the decision process are factors such as timeliness, thoroughness, convenience, accuracy, and precision. The decisions themselves require knowledge of the expected impact and the expected costs of each course of action. The Council funded a proposal from Rutgers University to develop useful tools to measure the costs, classify the benefits, and measure the benefits of diverse library functions. The project's objectives are to adapt functional cost analysis to all types of library functions and services, to develop a taxonomy to classify library beneficial impacts, and to develop a metrology (measurement science) for measuring benefits as described by the taxonomy. The project investigators will develop techniques and a methodology that will be assembled into a manual, which will subsequently enable other libraries to use the measurements

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that are defined from the project or to define their own, as appropriate.

Total Quality Management (TQM)

In an article in the *Journal of Library Administration*, Council president W. David Penniman called for the development of a Malcolm Baldrige award for the library community. He argued that an award would encourage the development of total quality management practices in libraries.

The Council cosponsored with the Special Libraries Association (SLA) a series of workshops on "The Quality Imperative." A total of 226 participants attended the workshops, which were offered in six locations. Course evaluations rated the workshop overall as "very good to excellent." The workshop was also used as part of a three-day conference on total quality held in Los Angeles in early 1993. It was used also as the basis to develop a course on benchmarking, a topic the Council sees as a critical component in the effective implementation of TQM. Total quality management principles have taken hold in the academic community as well, and several universities have begun quality improvement programs that involve the library.

INFRASTRUCTURE

The Council's infrastructure program area is intended to establish continuing communication and cooperation among the various information systems and services that support our libraries and to assure that economic, sociopolitical, technical, and legal changes do not inhibit library functions or access to information by individuals and groups. The Council is interested in finding those key pressure points where we can help strengthen the information infrastructure.

Infrastructure is an umbrella term for the systems, services, and facilities that are drawn upon to help libraries and other information services operate more efficiently and effectively. Under this umbrella we include communication networks, bibliographic utilities, software and hardware vendor communities, and publishers. In addition, we consider current physical structures (i.e., buildings) essential to the delivery of information and an important component of infrastructure. This program area deals with the people, policies, and politics of cooperation and collaboration.

National Engineering Information Initiative

Background

Last year's annual report described the birth of a national initiative to solve a generally recognized problem with engineering information and data: the extremely complex nature of access to the store of engineering expertise and how this complexity inhibits the nation's ability to compete in the international industrial arena. Improving access to technical information resources at the national level will yield a significant return on investment and, at the same time, improve our competitive stance.

The June 1992 conference cosponsored by the Council on Library Resources and the Engineering Foundation (with supplemental support from the AT&T Foundation and the National Science Foundation) resulted in an integrated action plan to improve access to engineering information in libraries and specialized information services in the United States. The Council's report of the conference proceedings, *Exploration of a National Engineering Information Service*, was published in December 1992.[1]

[1] *Available for $50 from Media Services Printing, B10 MVR Hall, Cornell University, Ithaca, NY 14853.*

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This effort has since become known as the National Engineering Information Initiative (NEII). The Council is functioning as the prime mover to maintain the progress of the NEII toward the realization of a national engineering information network. The NEII work is proceeding in accordance with the original integrated action plan presented in last year's annual report.

The Committee for Establishment of GENESIS (The CEG)

The top-down component of the integrated action plan called for the commissioning of a high-level panel to be known as GENESIS, which will provide the conceptualization, strategic direction, planning, design, administration, sanction, and oversight required to promote the development of a national engineering information network. The Council has coordinated the formation and operation of the CEG, which has succeeded in developing:

- a charter for the GENESIS Group;
- a staffing plan for GENESIS, including organizational elements, functions, an estimate of staff costs, position descriptions, and identification of potential candidates for the defined positions; and
- a definition of potential alternative roles for GENESIS in pursuing the integrated action plan.

Tasks remaining for the CEG include finding a home base for GENESIS, seeking a funding base for GENESIS, and initiating GENESIS operations.

Funding the NEII Integrated Action Plan

The Council is carrying forth an aggressive program to acquire funding for the NEII action plan. Still pending are proposals to:

- fund several specific elements of the overall action plan, the Engineering Information Proficiency Initiative, the GENESIS Group Initiative, and the initiative to encourage self-funded pilot projects;
- fund the entire NEII action plan for the first three years; and
- fund a segment of the overall users study assessing the usage and needs of the users of chemical engineering information and data.

Under development and soon to be submitted are proposals to:

- fund another segment of the user audience made up of engineers and their supporting staff directly involved in the manufacturing process in any or all industries;
- fund a program to experiment with several universities to improve engineering curricula in the area of engineering information management and application; and
- fund a prototype model of the NEII to be developed jointly by the Council and the National Institute for Science and Technology.

In addition to these funding initiatives, the Council is involved with engineering societies, corporations, and government agencies engaged in the development of the national data highway and high-performance computing initiatives.

Corporate Sector Support

The Council intends to approach a variety of major U.S. corporations for financial support in the form of interim funding to maintain the initial momentum for the NEII until longer-term funding materializes. The approach will involve mailing a brochure and cover letter to a large number of corporations that would benefit from a national system.

Computer Discussion Group

With the cooperation of the Coalition for Networked Information (CNI), a list server was established that is available to all interested individuals and groups who wish to exchange information and ideas. To subscribe to this list, send electronic mail to listserv@cni.org with the message: subscribe neii <your name> and you will be added to the discussion group.

NEII Focus Group Sessions

In order to interest and involve a wider audience in NEII activities, focus group sessions will be conducted with engineers in government, universities, and industry. The focus groups will explore with the engineers the types of barriers encountered in performing everyday engineering tasks with an eye to discovering the importance of improving access to both internal and external engineering information and data. A second outcome of the focus groups will be to provide additional direction to our planned research

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into the needs of engineers for a national information network, one of the specific initiatives of the NEII action plan.

Setting Library Policies and Priorities in Research Universities

A special grant program for studying future management and service issues in research institutions and their libraries and for developing strategic plans to deal with those issues was announced in the spring of 1990. The grant program was developed in response to the work of the Council's Research Library Committee, which had been considering issues related to the transformation of the teaching and learning information base by integrated information technologies such as computers, telecommunications, and text storage systems. The committee recognized that it was not clear how libraries and faculties would respond to increasing electronic information and the unbounded, unlimited access called for by these new technologies. It was also unclear to the committee if universities and their libraries would be able to embrace this new digital environment productively or if they would be engulfed by it.

The "Statement from the Research Library Committee" (May 1990) concluded that universities would need to undertake a fundamental rethinking of library and information service objectives and, indeed, to consider a redefinition of the role of the research library. Several policy questions were identified; the Council's 1990 annual report includes those questions and subsequent recommendations by the Research Library Committee.

The grant program encouraged universities to begin to address policy questions through a planning process. It did not prescribe how the process should be organized, or which of the questions should be given priority. The program did recommend the active participation of faculty, administration, and the library staff.

Four grants were awarded, and the projects began in 1991. All are nearing completion and final reports are expected in late 1993, but it should be noted that in all cases the process of planning will be continuing. Grant recipients uniformly report that major benefits from this program have been the establishment of a process for planning, the engagement of university faculty and administration in that process, a reconceptualization about how the institution can respond to the changing environment, and the development of tools to support data-driven decision making.

Columbia University

Data collection and analysis have been completed for the study and survey of library use and users in three science departments—biology, physics, and electrical engineering. The costs of interlibrary borrowing and document delivery were compared with that of ownership, and results confirm that, if cost is the only consideration, it is less expensive either to purchase articles in lesser-used journals or to request them through interlibrary loan than it is to buy those journals in anticipation of need. However, cost is not the only consideration. Related studies of unbound periodical use show that browsing new periodicals is an important source of information for the library's users. Columbia's project team also found that users of electronic information resources make use of a wider range of information than those who do not use electronic services such as online databases or CD-ROM. Users in the sciences also prefer policies that tend toward the ownership of journals and electronic indexes, but this view could change if electronic browsing and document delivery services were developed to become more than substitutes. Columbia also found that, as with most academic libraries, the effect of inflation on the acquisition of science periodicals has been detrimental to their budget. As part of their project, the Columbia study team also visited libraries at six institutions—AT&T Bell Laboratories, Carnegie Mellon University, Cornell University, IBM (Yorktown), the University of Pennsylvania, and Yale University—to identify different models for information delivery that could be incorporated into Columbia's existing electronic infrastructure.

The documentation and detail of the studies and surveys not only provide a valuable base for future planning by Columbia University Libraries, but also present useful models for replication by institutions that expect to take on similar projects.

Harvard University

For Harvard University, the strategic planning grant coincided with a significant period of change in the Harvard College Library. In addressing the need to respond to

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changing technology, economics, scholarship, and teaching within a research institution. Harvard found that a key to success was an initial emphasis on vision and a continuing focus on organizational development. Their vision statement presents a future scenario based not on the current organization, but on the role and function of the Harvard College Library ten years hence. Supplementing the vision is a statement of values that expresses the nature of the organization Harvard wished to create. A Staff and Organizational Development Taskforce was charged with defining the strategy to address organizational change.

The most important goal included in the Harvard College Library strategic plan was the retrospective conversion and addition to HOLLIS, their online catalog, of pre-1976 catalog records. Five million records will be converted to machine-readable form in the next six years in one of the largest projects of its kind, and the records will be added to the OCLC and RLG/RLIN databases. This project also helps to address the critical space problems facing Harvard by ensuring more effective management of the materials transferred to the Harvard Depository.

Harvard also plans to share information about organizational change and revitalization with the larger library community. Invitational symposia are scheduled in late 1993 to address the changing role of the library in learning, teaching, and research, while the process of planning within Harvard College Library continues.

State University of New York University Center Libraries

Building on a strong foundation of interinstitutional collaboration, the SUNY Center libraries have been developing multilevel committee structures for planning and policy setting related to an integrated acquisitions plan for four institutions within the statewide system. The libraries recognized that policies needed to be based on relevant data; they conducted a journal overlap study, a current journal titles use study, an interlibrary loan survey, and a faculty electronic access survey. In addition to gathering the necessary data on which to base current and future decisions, the studies and surveys also helped to increase communication, raise awareness, and enlist the cooperation of the communities served by the four libraries.

The studies demonstrated that an unexpectedly high number of unique journal titles exist in the four collections; a significant number of journal titles at each campus can be considered low-use titles; an acceptable fill rate for interlibrary loan is possible through the use of the combined collections; and the primary obstacles to electronic information access for faculty lie in a lack of knowledge of what is available, coupled with a need for training.

The goal of the grant, to develop the policies and plans for implementation of an active program of cooperative collection development and resource sharing among the SUNY University Center libraries, has been achieved. Its success will be validated by the continuing cooperative policy development process and the engagement of the libraries' staffs, administrators, and faculties.

Triangle Research Libraries Network

Duke University, University of North Carolina at Chapel Hill, and North Carolina State University have also been conducting user surveys and studies to gather data on their collective collection strengths. Included in the data is a statistical profile of faculty, graduate students, and grant funding in each of the science and engineering departments of the three universities. The statistics show a high geographic concentration of science and engineering graduate education.

A large-scale survey of all faculty and a large sample of the graduate students in science and engineering departments of the three research universities was conducted in the spring of 1992. The study was modeled on a similar survey conducted by the librarians at Columbia University. The data complement findings from Columbia and SUNY regarding the use of materials and library services. After careful analysis of the data, the research team is now exploring some key policy questions with focus groups on each campus.

In addition to the original proposal to examine cooperative collection development and access for materials and electronic media for the science community, an unexpected result from the planning process has been the development and drafting of a proposed new model university policy suggesting that faculty retention of copyright for the articles they publish in scholarly journals is a necessary precondition for strengthening existing or developing alternative low-cost mechanisms for the dissemination of research results. The draft policy has been widely disseminated and discussed at meetings of librarians, publishers, and academic faculty.

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Standards

The National Information Standards Organization (NISO) completed work during the year on durable hardcover bindings for books. Council-supported work continues to develop additional NISO technical standards for the preservation and conservation of library materials.

Scholarly Communication

The Council partially supported a conference organized by the Getty Art History Information Program and the American Council of Learned Societies in the fall of 1992 to address the implications of electronic information for scholarship in the humanities. Papers by Oleg Grabar, Institute for Advanced Study, Princeton University; Carolyn Lougee, Stanford University; Richard Lanham, University of California, Los Angeles; William Y. Arms, Carnegie Mellon University; and Lawrence Dowler, Harvard University, provided the invited group of scholars, administrators, librarians, technologists, and leaders of national institutions and learned societies with information about how current trends in information technology will affect the humanities. A summary of the proceedings includes excerpts from the keynote address by Vartan Gregorian, President, Brown University, along with summaries of the discussion papers, findings from the working groups, and comments and conclusions from the conference organizers. The participants developed recommendations, including the initiation of a national collaborative effort for the humanities, promotion of the creation of a national "digital" library, development of model collaborative projects, support for training, promotion of an understanding of the role that information technology can play in research and teaching, and establishment of descriptive standards for primary materials.

In a similar vein, a one-day seminar in April 1993 was held at the College of William and Mary to explore the topic of scholarly humanities communication in the electronic age. Scholars, librarians, and the public were invited to share information on current projects and to discuss the trends affecting the way people use technology to create, retrieve, and manipulate information. Keynote speakers alternated with case studies and provided an atmosphere of interactive learning during the seminar, which was partially supported by the Council.

Institutional Collaboration

To investigate how librarians can work with computer scientists and university faculty in a collaborative setting demonstrating a virtual library concept, the Council has awarded a grant to Rice University for partial support of a project to develop materials for an undergraduate course on science in early modern Europe within the university's electronic studio project. The project will incorporate an advanced technology, the Virtual Notebook System (VNS), which is a distributed multimedia hypertext system. The electronic studio is analogous to an architect's studio, where a drafting table and storage cabinet serve as a permanent work place and repository for tools, design projects, and personal possessions. Materials collected by librarians, faculty, and students in fully developed electronic studios will include notes, assignments, documents, images, video, and sound. Roles and responsibilities of the librarians, faculty members, and computer scientists, as well as the management and utilization of technologies, will be assessed as part of the project.

Network Advisory Committee

The Council continues to provide modest support to the Network Advisory Committee (NAC). Membership in the Network Advisory Committee is composed of U.S. organizations formally constituted and functioning in the public and private (for-profit or not-for-profit) sectors that are actively engaged in regional or nationwide networking of library and information services, or have a significant impact on the development of nationwide networks providing library and information services.

The December 1992 meeting explored the topic of "Multimedia and Networking." Guest speakers included Dr. Robert Heterick, President of EDUCOM; Howard Besser, Canadian Center for Architecture; William Harless, Time Associates, Ltd.; David Bearman, Archives and Museum Informatics; John Clement, EDUCOM; and Carl Fleischhauer, Library of Congress. Meeting participants saw demonstrations of multimedia for different communities (education, scientific, museum, etc.) at the National Demonstration Laboratory for Interactive Information Technology at the Library of Congress. A panel presentation on the implications of multimedia for the information community concluded the meeting. The proceedings will be published as Library of Congress Network Planning Paper no. 24.

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The June 1993 meeting was devoted to an exploration of the educational requirements for information professionals from the perspective of national networking initiatives. Members of ALISE (Association for Library and Information Science Education) participated in the meeting. Speakers from both the Network Advisory Committee and ALISE provided overviews of the roles of networkers and of library and information science programs. Topics included overviews of each organization, updates on current national legislation, issues facing higher education, the changing curriculum, distance learning, and continuing education. The proceedings will also be published as a network planning paper.

Network Planning Paper No. 23, "The Role of State Library Agencies in the Evolving National Information Network," based on the April 1992 NAC meeting, was published and distributed in 1993.

Community Networking

It is expected that within the next few years, electronic communications and multimedia information resources will be delivered to communities and homes across the country. What impact these services will have on libraries and individuals is the subject of an initial evaluation of the Blacksburg Electronic Village Project. The project is a joint effort of the Virginia Polytechnic Institute and State University, the Town of Blacksburg, and C&P Telephone/Bell Atlantic Company. Over the next three years, high-speed data connections and Internet access will be brought to homes, schools, libraries, and businesses in the community of Blacksburg. The Electronic Village Project is serving as a prototype for bringing interactive library resources to people in the community. The initial evaluation, funded by CLR, will gauge the impact of new electronic information services on libraries and individuals; determine which information services have the greatest value to users by looking at pricing, billing, and other delivery issues; assess the user interface and other technical aspects of the information services; and refine evaluation methods and techniques in order to make improvements before a subsequent full-scale evaluation of the project.

Libraries and Technology

The historical attitudes of librarians toward technological devices and the role of innovations in shaping the development of library processes and services is chronicled in a new monograph by Klaus Musmann. His survey of the professional literature documents aspects of the link between society and the library. He found that librarians have been remarkably willing to experiment with new technologies and adapt them to library activities.

International Activities

The Council's international activities this year were concentrated on support for the International Federation of Library Associations and Institutions (IFLA). Funded by the Council in 1989 and administered by IFLA, the Robert Vosper IFLA Fellows Program awarded fellowships on a competitive basis to outstanding librarians with an interest in and a commitment to the international aspects of library service. The program was named after Robert Vosper, Honorary Fellow of IFLA, and a former CLR Board member (now Director Emeritus). The purpose of the fellowships was to enable librarians with the potential for leadership and international involvement to develop this potential by working on an activity linked with the development and operation of one of IFLA's Core Programmes.

A total of twelve fellowships were awarded during the four-year program, and topics addressed by the Vosper Fellows covered the broad range of IFLA interests: preservation, bibliographic control, interlending and document supply, library education, and technology. Project reports are being published by the IFLA Core Programmes. The 1989 class members were: Mark Roosa (University of Delaware, USA); Marc Walckiers (Université de Louvain, Brussels, Belgium); and Johanna Wellheiser (Metropolitan Toronto Reference Library, Toronto, Canada). Members of the 1990 class were: Françoise Bourdon (Bibliotheque Nationale, Paris, France) and Jay Lambrecht (University of Illinois at Chicago). The 1991 class included Michele Cloonan (University of California, Los Angeles); Barbara Stefaniak (Institute for Scientific, Technical and Economic Information, Warsaw, Poland); and Titia van der Werf (RABIN, The Hague, Netherlands). The class of 1992 included Georgeta Clinca (Biblioteca Nationala a Romaniei, Bucharest, Romania); Craig Ross Fairley (Metropolitan Toronto Reference Library, Toronto, Ontario, Canada); Elda-Monica Guerrero (Centro de Investigación y Docencia Economicas, Mexico); and Wendy Smith (National Library of Australia, Canberra, Australia).

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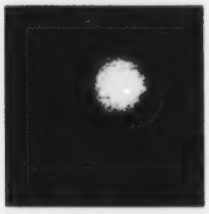
THE COUNCIL ON LIBRARY RESOURCES

Shaping a Foundation for the Future



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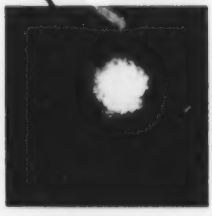

Prepared for
the Council on Library Resources
by Robert Gurwitt

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SHAPING A FOUNDATION FOR THE FUTURE

These are unsettled times for libraries. Pushed by the breakneck advance of the information society, they are being forced to redefine their place in our universities and cities. A changing economy is driving them to examine whether structures they developed in the industrial age are appropriate for a new era. Shifting social values are moving them to explore new ways of serving their communities. New technologies are revolutionizing the way scholars and ordinary citizens find and use information, but are also compelling libraries to reassess their place in a society beguiled by the meteoric growth of the information business.

This is also a time of unrelenting financial strain. Academic and research libraries face growing pressure to install expensive new electronic networks and databases at the same time that the cost of traditional publications is rising—all while their parent institutions struggle through increasingly perilous financial straits. Many public libraries have been forced to close branches, lay off staff, and slash their acquisitions budgets.

As Richard De Gennaro, the librarian of Harvard College, puts it, "The challenge we're facing right now is we have to maintain the traditional library, because that's where most of the action is, and while we're doing that we have to cope with new technology and the growing variety of research resources, and we have to do both of these things at a time when the total resources available to us are diminishing, in an environment that is resistant to the drastic changes we need to make to survive."

These are daunting tasks. To be sure, libraries over the years have been enormously resourceful in adapting new technology and new ways of thinking to their work; despite limited funds, they have learned how to share isolated resources, ease public access to their collections, streamline their management, and cut costs. This, though, is an era of unaccustomed change and of bewildering financial choices. Even for libraries that are at home with innovation, the challenges ahead are staggering.

That is where the Council on Library Resources comes in. **Since 1956, the Council has been a central player in the evolution of the library world.** It has bolstered the training of skillful and imaginative library administrators, stimulated the development of new technologies for preserving materials and disseminating knowledge, focused attention on the nuts and bolts of management and library economics, funded pioneering efforts to improve communication among libraries and to transform scholarship, and encouraged revolutionary gains in users' access to information. For the better part of four decades the Council has been an ally, adviser, and catalyst for change among libraries. With libraries moving toward so uncertain a future, it is not surprising that the Council is needed to play those roles with renewed vigor.

Doing so is especially important just now, when the social consensus that once supported libraries appears to be unraveling. This country has been turning its back on its libraries. Cities have slashed their library budgets. The federal government has proposed severing its support. Universities not only have cut funding for their own libraries, but have taken aim at the future of libraries by closing their library schools. Foundations have turned their attention to other problems.

Libraries are not, of course, uniquely burdened; there are few public institutions that haven't found themselves in similar straits during the last few years. But ignoring the health of libraries is a bit like ignoring the health of schools: it can help the bottom line in the short term, but it exacts a great cost down the road. That is because, like schools, libraries hold the keys to the future. As former President Jimmy Carter told the American Library Association's 1993 convention, "The best single focal point of learning on a continuing basis...[is] the libraries of the United States."

As most citizens seem to grasp intuitively, libraries are among the few institutions that remain bulwarks in this day and age against the degradation of public space.

Academic libraries, in the face of growing budget pressure on universities to foster proprietary research owned by its funders, have remained dedicated to the notion that the profit-making potential of knowledge is irrelevant to whether or not it should be collected or made available. Public libraries have struggled to remain accessible to anyone and everyone who needs information or seeks knowledge.

Why is that access important? The reason is simple: libraries supply the necessary tools and knowledge to those who would solve society's problems, and they do so regardless of the problem's size or who wants to solve it. They hold the books that help unemployed laborers retrain themselves, they keep the statistics that buttress arguments at city council meetings, they undergird researchers trying to cure cancer or stop a tuberculosis epidemic. A library is not an institution that stands apart from the university that houses it or the city that supports it; libraries are part of those communities' warp and weft, their assurance that they can always refine and enrich themselves.

"Libraries are called into being by people who have need of them. They don't initiate themselves," says Dr. William N. Hubbard, Jr. (a former president of Upjohn Company and member of the Board of Regents of the National Library of Medicine, and a member of the CLR board of directors). "It's a fool's errand to deal with libraries as if they were institutions that hung, like Mohammed's coffin, between heaven and earth." In a very real sense, unless libraries can sort through the particular challenges that face them, it is hard to imagine that society will be able to address with any confidence the problems that confront it as a whole.

The William & Flora Hewlett Foundation, in its 1977 annual report, found another way of saying the same thing. Explaining its funding choices—which currently include the Council—the foundation argued that "making ours an effective democratic society, a society whose institutions work, is essential to human welfare not only in the United States but throughout the world." Simply put, it is the Council's job to ensure that libraries are institutions that work.

Though the Council is an operating foundation, which means that it can initiate projects as well as make grants to others, it has never had enough money to solve libraries' problems on its own, or even to fund entirely others' efforts to do so. Rather, it has wisely **laid down the seed capital for projects designed to help librarianship mature.** It has always recognized that the big issues facing the field are in fact made up of smaller fragments, and that progress entails finding and tackling the pieces that will advance the whole.

It is uniquely equipped to do so. It is, for one thing, small in size and able to act quickly when needed—as, for example, when a national effort to send English-language books to students and universities in China shortly after the Tiananmen Square uprising was in danger of faltering when its funding for publicity suddenly fell through; within a week, the Council had mustered the needed money.

While the Council has coordinated large and complex projects, it is also able to pay attention to the small projects—the research papers, travel expenses, and conferences—that tend to get lost in larger funding organizations. Its ability to focus on the details of librarianship has made it the vehicle of choice for funders interested in nurturing libraries and scholarship.

Just as important, it is independent of any particular institution, a virtue that has given the Council a number of strengths. It is able to steer its resources to projects that, even when carried out by a single institution, will benefit libraries as a whole. Because it is independent, it can be a neutral broker and mediator, able to convene organizations and advisers to address issues that cross institutional lines or arouse controversy. And its standing within the field draws attention to the problems it identifies—the Council's sponsorship of projects in the past has invariably given them wider notice and the credibility to marshal additional support. That is due in part to the character of the Council's board of directors, which includes not only members of the library profession, but distinguished academics and researchers who represent the public's interest in libraries.

All of this has given the Council an outsized impact for an organization of its scale. "If you ask any number of people about the half dozen most important events in librarianship, without exception you will find the Council in back of them," says William Crowe, who is dean of the University of Kansas Libraries. "You'll find the Council there in the shadows, on the sidelines, cheering people on, providing them a stipend or getting something published or funding a meeting. They make it possible for other people's ideas to come to the fore. They're a midwife."

As academic, research, and public libraries start coming to terms with the demands of the rapidly changing environments in which they work, an organization like the Council would have to be invented if it didn't already exist. As Richard De Gennaro wrote a few years back, "At the beginning of this era, our field was characterized by stability and continuity. Now it is characterized by change, discontinuity, and opportunity." In that somewhat chaotic atmosphere, someone has to stand behind the pathfinders, equipping them, urging them on, and making sure the results of their work have the impact they deserve. That is the Council's role.

It has been so since the beginning. In some ways, the Council was born into an environment much like the current one. The mid-1950s were a time of enormous ferment for librarians. It was becoming abundantly clear that new technologies—and especially the computer—were rewriting their traditional ways of doing business. Scientific and technical advances, and the competition with the Soviets, were bringing new scrutiny to the entire American educational system and to libraries' place within it. The leading edge of the Baby Boom was approaching its early teens; clearly, within a decade college and university libraries would be facing unprecedented demands on their resources.

It was in that atmosphere that Louis Wright, director of the Folger Shakespeare Library in Washington, D.C., was asked by the Ford Foundation to convene two meetings in early 1955. **Ford was interested in improving libraries overall and in the role the computer would play within them.** It also wanted to find some way of escaping a growing shower of library-related funding requests. For their part, Wright and the extraordinary collection of leading librarians, archivists, historians, and academics that he convened were interested both in where libraries were headed in general and in the particulars of how they were to get there.

There are not many accounts of those gatherings in the wood-paneled stillness of the Folger Library. What exists is written in the stilted, colorless language of conference minutes. But it is clear that the discussion was wide-ranging and, reading between the lines, occasionally heated; they talked about such issues as cooperation among libraries, the problems of college and smaller public libraries, how to assess the promise of computers and microfilm, and how to promote greater access to libraries' collections. The one notion that seemed to draw universal support was the need for a national commission of some sort to coordinate efforts to find the answers to those questions.

Not surprisingly, then, that is what emerged. The Council came into existence in September 1956 as a fully funded project of the Ford Foundation; it continued to draw most of its funding from Ford until 1977. Its first president was Verner Clapp, until then the chief assistant Librarian of Congress. Its charge was expansive: "To aid in the solution of library problems."

In the decades since then, the Council has had four presidents. Clapp, a widely read, congenial man of extraordinary enthusiasm, became perhaps the leading force for change in the library world during his tenure. Fred Cole, a historian and university president, was more muted but no less influential than Clapp—"Because he was a master at working through others," commented one eulogist after his death, "his trail is more often than not blazed only by his shadow." Warren J. Haas, the former director of libraries at the University of Pennsylvania and then vice president and university librarian of Columbia University, was a driving force, both before he arrived at the Council and after, for upgrading the professional standards of

librarianship. Since 1991, W. David Penniman, a former vice president of the OCLC Online Computer Library Center and former director of the Information Services Group at AT&T Bell Laboratories, has led the Council.

Because each leader put his own imprint on the Council, it is tempting to tell its story chronologically. But more than most institutions, foundations are judged by how they respond to the needs they encounter in their chosen world. **In the Council's case, its story is inextricable from the evolving challenges facing the country's libraries**—especially the academic and research libraries on which it has focused much of its attention.

If there is a single theme that characterizes the evolution of libraries over the last few decades, it has been the pressure to knit scattered resources into a web linking one library to another, and all into a whole. Libraries arose, in a sense, as islands of information, each with its own cataloging systems and procedures. Left to their own devices they would undoubtedly, like island cultures everywhere, have developed exotic languages understandable only to themselves. That might have been fine if each library in the country had all the books, journals, manuscripts, and tapes ever created, but they don't. In a society that relies as heavily as ours on information, sharing it has been an imperative; that, in turn, has depended on libraries learning to communicate with one another.

From its beginnings the Council has pondered how to make it possible for libraries separated by physical distance nonetheless to share knowledge: indexes of manuscript collections, say, or cataloging information on books to be published, or a database maintained by one library but available to many. Some of the projects it funded along those lines were the best the technology of the time could offer. One of its first grants, for instance, went to the compilers of an updated *Union List of Serials*, an immense, five-volume catalog detailing the serials—some of them dating back to the eighteenth century—held by 956 libraries in the U.S. and Canada. It was a prodigiously ambitious undertaking that, thanks also in great measure to the Council, was on its way to being outmoded by the time it was published in 1965.

For the Council also realized early on that the future of libraries lay with the computer, both as a labor-saving device and, ultimately, as a means of sharing information. It is no exaggeration to say that anyone who sits down at a terminal today to ferret out material on a particular subject—for a school paper or a biomedical research program or a neighborhood economic development project—is using the fruit of seeds sown by the Council.

A perfect example is MEDLARS. It is a computer-based information service maintained by the National Library of Medicine (NLM) that not only gives its users access to an immense array of data on medical research and published articles, but can provide a patient with lists of, say, cancer specialists in any city or region in the country or give emergency workers details of the toxic effects of a particular chemical spill. It is the largest library-based information system in the country, a cornerstone of both medical research and practice, and its roots lie in a grant the Council made in 1958 to the NLM to plan for the automation of its main bibliographic service. Without that pivotal early step, says Dr. Martin Cummings, who was for two decades the NLM's director and now sits on the Council's board, MEDLARS would not have followed. "People think of this as a great big government invention," he says. "But the fact is, the Library couldn't have started on it without that little grant from the Council."

Seed money for other projects has affected not just particular library programs, but the entire library world. Over the years, the Council has funded work to develop national and international automation standards and cataloging rules, made it possible for work to begin on a worldwide system for the organized exchange of bibliographic information, and helped create a comprehensive, computerized database of serial publications—no small feat, since journals and magazines, unlike

books, often change names and publishers over the course of their history.

Probably no set of Council projects has had greater impact on American libraries than its grants to the Library of Congress; taken as a whole, they have helped that institution shoulder the central role it plays today, saving the country's libraries hundreds of millions of dollars each year in cataloging costs. The Council helped the Library automate its services, funded its work on developing a national database of serial publications, and supported its efforts over the years to develop the Cataloging in Publication Program, which allows cataloging information to be included in books as they are published.

One of the Council's most significant sets of grants was to the Library's Machine-Readable Cataloging (MARC) program, which was a crucial step—if not the crucial step—in the development of a national database of cataloging records. Its goal was to make it easy and inexpensive for libraries around the country to automate their procedures by acquiring basic cataloging information about books—details such as their titles, publishers, and authors, as well as the subjects they covered—from a central source.

Before MARC's development during the 1960s, libraries either created their own catalog record for each item that came in, or depended on huge prepared catalogs of card images that they transcribed for their own system or copied and used directly. There were two problems with this approach: it was cumbersome and time-consuming; and it meant that as libraries automated, each had to develop its own computer format for keeping track of its holdings, which was fine for individual libraries but meant a programming nightmare once they started trying to share information.

Through a series of grants from the Council during the 1960s, however, the Library of Congress was able to start building a system that would, in essence, give libraries a common language for cataloging. It launched the full-scale MARC service in 1969, allowing libraries to slash their costs by cutting the amount of original cataloging that had to be done and providing them with the raw data to produce their own catalog cards and book catalogs. Just as important, with its introduction of a common computer language for libraries, MARC made it possible for the first time to envision a nationwide system for keeping track of their holdings.

It might help to pause a moment here to put these developments in perspective. It's easy to see why computerizing their procedures was a good thing for libraries: it saved time, money, and effort. What is crucial to understand, though, is how enormously vital it has also been to ordinary library users.

The reason is that information is useless unless you can get to it. That, in turn, means keeping it on hand and knowing how to find it. Anything that helps librarians store or retrieve information, in other words, gives ordinary citizens better access to it. By setting a national bibliographic system as a goal—and more importantly, by funding the unglamorous steps, such as MARC, needed to make it a reality—the Council was in essence trying to make it possible for anyone, anywhere in the country, to find out which resources could meet their needs and how to lay their hands on them.

Still, it took some time, and a concerted effort, to make that goal a reality. The project that made it possible was the Bibliographic Service Development Program (BSDP), which many librarians rank among the most important of the Council's ventures.

At its heart, the problem the BSDP had to resolve was not technical, but political. With the development of the MARC format, in the late 1960s and early 1970s a number of regional library networks sprang up to provide bibliographic services to their members. Where once only the Library of Congress had provided catalog cards to subscribers around the country, suddenly there was a host of organizations—the Ohio College Library Center, the Southeastern Library Network, the New England Library Network and others—using MARC to create not only catalog cards, but a range of services including, most importantly, online access to biblio-

graphic information. Each organization had been born to meet a particular regional need, so there was no guiding hand behind the activity—although the Council did its best to play a coordinating role by providing funding and advice for projects that might resolve general problems of network development.

Over time, the Ohio group (now the OCLC Online Computer Library Center) and a consortium of the country's research libraries, known as the Research Libraries Group (RLG), came to dominate the field, each possessing enormous databases of bibliographic records. The two large groups competed intensely for members, with the result that libraries connected with one or the other often refused to cooperate with their rival's subscribers. While the ability to tie together every one of the country's research and academic libraries existed in theory, in practice it was a thorny diplomatic problem.

Launched by the Council in 1978, the BSDP became the neutral ground on which the competing organizations could meet and hammer out ways to link up their databases. Its importance to research can be gauged in part by the list of funders that supported it, something of a Who's Who of organizations active in the library field at the time: the National Endowment for the Humanities, the Carnegie Corporation, the Commonwealth Fund, the Ford Foundation, the William and Flora Hewlett Foundation, the Lilly Endowment, the Andrew W. Mellon Foundation, and the Alfred P. Sloan Foundation.

The program was enormous in its scope, pursuing nine separate areas of endeavor and calling on the talents not just of research librarians, but of computer and communications specialists and of senior academic and industry officials. It established sets of standards not just for bibliographic records kept by the different systems, but for communicating among them. It focused on improving the bibliographic databases themselves by helping to computerize records held only on microfilm and microfiche and to develop a plan for converting records that could be found only on paper. It set up a project to find ways of linking the databases to each other and of making the links seamless to users. And, perhaps most important, it explored the range of services that researchers, scholars, scientists, students, and others would need in order to make full use of the available databases. The result was an online system that allows a user, from a single terminal, to search the major bibliographic databases in the country.

Since those databases contain information on most resources held by this country's libraries, **it is now possible for anyone with access to a terminal to find almost every piece of cataloged material held somewhere in a library.** He or she can delve into the New York Public Library's resources on the economics of inner-city hospitals, for instance, or piece together the history of attempts to regulate bank redlining from around the country, or find the musings of scientists worldwide on extraterrestrial biology. Small wonder that any number of librarians consider the BSDP, in the words of one, "the greatest library development in this century."

As important as improving access to this country's library collections has been, though, it is only one side of the coin. The other is building and maintaining those collections in the first place. The Council has never had enough money to help individual libraries acquire materials, but it has routinely funded projects to resolve problems faced by all them. It helped the American Library Association (ALA) set up the Library Technology Project, which developed new products not available from commercial sources and helps libraries judge those products that are. It provided the seed money for one of the tools most used by college libraries in guiding the development of their collections, the ALA monthly *Choice*, which provides short scholarly evaluations of books as they appear. And over the years it has helped ALA study the insurance requirements of libraries, survey the strengths and weaknesses of public library systems, and study the financing of online services run by public libraries.

One of the Council's key ventures has been its sponsorship over the decades of a large-scale effort to preserve printed material or its intellectual content—an undertaking that is in no small part responsible for the widespread recognition that our knowledge base needs to be protected. It was not always so; when the Council first formed, only a handful of people paid much regard to the notion that the country was in danger of allowing its collected wisdom to crumble into dust. One of them, fortunately, was Verner Clapp.

The creation of the Council was, in some ways, a godsend for Clapp in this regard, since it gave him a vehicle for seeing to it that preservation work got under way. Although the Ford Foundation was interested primarily in issues relating to automation, Clapp argued forcefully that as important as computers might be to libraries, so, too, were paper, binders, ink, and, in particular, the ability to preserve images on microfilm. He set the Council on a course of promoting both the technology of preserving the human record and the urgency of doing so.

Over its first few decades, the Council had far more success with the first task than with the second. It funded the research of pioneering preservationist William J. Barrow, who demonstrated that it was acid in the paper used for manufacturing books since the mid-19th century—and not environmental pollution, as was popularly believed at the time—that was the prime culprit in its deterioration. The Council also helped Barrow set up a laboratory that developed standards of paper durability and investigated methods both of deacidifying paper and of manufacturing acid-free paper. It helped the Library of Congress establish its Preservation Research Laboratory, funded the first regional conservation center (in New England), underwrote studies of particular technical problems and guides for conservators, and subsidized the development of microform technology as the most promising avenue for safeguarding the intellectual content of deteriorating publications.

By the late 1970s, in short, people concerned with preservation knew what had to be done. Making it happen was another matter. For a variety of reasons, publishers hesitated to adopt acid-free paper, and paper manufacturers were slow to make it. Library directors had their minds on other problems. The people who in the end would have to fund preservation work—university administrators, foundation executives, and the like—seemed unaware of the problem. As much as 80 percent of the collections of the country's premier libraries—basically, anything printed after 1865—was in danger of falling to pieces.

It was around this time that Warren J. Haas took over as the Council's third president. Haas had seen the effects of deterioration on research collections firsthand, and once at the Council's helm he used the position as a bully pulpit to preach the cause. "If individuals have any sense of the importance of the continuity of the human experience, they can't avoid the problem of preservation of the human record," he said in *Slow Fires*, a 1987 film that aired on public television and that the Council funded in an effort to build a national constituency for attacking the problem. "To fail to do so is, in a sense, to turn your back on history."

During the 1980s, Haas and the Council made sure no backs remained turned for long. They mustered a broad cross section of the library, university, and foundation communities on behalf of preservation efforts. They brought about the creation of a committee on book longevity to make recommendations on how to produce longer-lasting printed materials. They encouraged the creation of a modern standard for acid-free paper. In 1981 they helped establish a preservation task force as part of a joint project of the Council and the Association of American Universities. They spurred the creation of a mid-Atlantic microfilming facility dedicated to quality preservation and eventually, in 1986, set up a national commission to deal with the problem. Initially funded, staffed, and organized by the Council, the Commission on Preservation and Access became a separate nonprofit organization in 1988. Preservation had finally come of age.

In the end, if maintaining and ensuring access to collections are pieces of the same puzzle, then someone has to be able to put them together. For this reason, **the Council has worked from the beginning to help research and academic libraries develop their operations and management strengths.**

Its efforts on this score have fallen into three broad groupings: professional development, management issues, and strategic planning. In 1968, the Council began its first fellowship program, designed to give librarians a chance to pursue independent projects aimed at exploring administrative and technical frontiers; the program lasted more than a decade, and funded 199 fellowships in all.

Two other Council programs have been influential. Its Academic Library Management Intern Program, begun in 1974, gave librarians with the potential to become leaders in the field a chance to spend a year working with colleagues at the top of the profession. Only a few interns were chosen each year, and many of this country's research and academic library directors have passed through the program on the way to their current positions. In 1981, the Council also funded a program at the University of California, Los Angeles, to give specialized training to recently appointed senior managers of major library systems; there have been ninety-seven such senior fellows through 1993.

The Council's focus on management began with a 1969 grant to the Association of Research Libraries (ARL) for a Booz, Allen & Hamilton study of management practices in university libraries. That in turn led to one of the longer-lasting and more influential developments in the field, the creation in 1970 of the Office of University Library Management Studies (now the Office of Management Services, or OMS) within ARL.

Until then, there had been no agency dedicated to helping research libraries develop as organizations or to giving them the tools for moving into a new period of focused delivery of information services. With consistent funding from the Council for its first decade, OMS has created programs to analyze management structures, collections, services, and preservation planning; it has designed training programs for key library staff; and it has looked for pioneering programs—dealing with anything from marketing library services to appraising library performance—and described them in kits designed to help other libraries innovate. With help from the Council, ARL has also built an initiative to apply the findings and benefits of OMS programs to smaller college and university libraries.

Throughout the last few decades, **the Council has also been investing small sums of money in studies to understand better the microeconomics of library services** and to develop methods for libraries to measure their performance. It has funded studies of the costs of computerization and microfilming, the feasibility of public libraries providing books by mail, formulas for library administrators to use in projecting future growth, methods for auditing the finances of university libraries, the costs of decision support systems, savings from copy cataloging, the costs of online catalogs, methods of strategic planning and budgeting, the actual costs and benefits involved in interlibrary loan programs....The list goes on.

As useful to the profession as all these projects and studies have been in the past, it is becoming clear that their real value may lie down the road, in the foundation they've laid for a far more ambitious set of management-related efforts. For if libraries are to survive, much less prosper, in a hard-edged economy, they must pay close attention to what their operations cost and whether they can be better structured. In essence, they will have to build an economic case for their existence and then redesign themselves to buttress it.

Building on the work it has sponsored in the past, the Council has convened a study group on the microeconomics of library operations, supported the development of a set of seminars for librarians on the precepts of total quality management, and funded strategic planning programs at four universities and university systems designed to look at the particulars of library operations and how they fit into their larger institutional aims. At Rutgers University, it is funding a project to analyze the economic benefits provided by research libraries to their parent institutions.

The detailed management information those projects should provide is only a beginning, though. For while the last few decades' work has given libraries an increasingly sophisticated set of tools with which to carry out their missions, it could not give them detailed blueprints for meeting the needs of a society that is changing as rapidly as ours. In every area with which the Council concerns itself—improving information processing and access, developing libraries' infrastructure, understanding library economics and management, and strengthening their human resources—**libraries stand on the threshold of daunting, but potentially exhilarating, change. If they are to be institutions that work—if academic libraries are to serve universities and research institutions, and public libraries are to help their communities grow and regenerate themselves—then there are frontiers that must be explored without delay.**

While those frontiers may differ somewhat for academic and public libraries, they involve the same forces: the challenges and opportunities posed by new technology, and the changing needs and wants of the communities served. How libraries of all sorts come to grips with the pressures they are facing will have profound implications for their management, their structures, and their personnel.

It is becoming clear to academic and research librarians, for instance, **that new information and telecommunications technology is not only changing how libraries operate, but may also transform their place within their parent institutions.** Research on that front is still young, but three ventures underwritten in part by the Council highlight the potential.

At Rice University, the Council is funding a project uniting librarians, computer scientists, and faculty members to develop undergraduate courses using hypertext multimedia. The aim is in part to familiarize students with the technology, but it will also undoubtedly change the way classes are taught, involving librarians up front in their design.

The Council is also underwriting an effort to create a national engineering library that will exist only in virtual form. At the moment, the information that engineers need to call on is widely scattered—in formal published literature, in government technical reports, in the trade literature and reports on ongoing projects, and in catalogs and manuals of standards. There is no efficient way for an engineer sitting down to plan a project or build a manufacturing process to find it all. The current venture is designed to build a "library" out of those various pieces and tie them together in an easily accessible network. An engineer who sits down at a terminal will be able to obtain whatever information he or she needs, whether it comes from the data banks of a commercial publisher or a professional society or an actual library.

In another effort that has extraordinary potential for both librarians and academics, the Council is working with librarians and researchers exploring a concept known as "knowledge management" that in the last few years has begun to tantalize the profession. The need for a new information model has been evident within the scientific research community for years. The amount of time required to publish results in print has made prompt communication hard for scientists and scholars. And while scientists trying to cope with the problem have created discipline-based knowledge networks, they have done so in a chaotic manner, often working on their own with no general standards to guide them; scholarly communication is, as a result, quicker, but not necessarily any more efficient. The idea of knowledge management is that it will play a coordinating and integrating role—much as, in an earlier and simpler manner, MARC set the standard for sharing information among libraries.

Some initial work on this score was begun a few years ago at Johns Hopkins University's Welch Medical Library in a Council-supported effort to transform a printed volume on human genetics into an electronic knowledge base that is accessible to—and can be updated by—geneticists worldwide. Working in conjunction with that ongoing venture, the library at the University of California at San Francisco has launched an effort to provide its researchers and physicians with

online access to journal articles as they are published, and to collaborative and peer-review networks.

As compelling as such projects are, though, they raise as many questions as they answer. The advent of sophisticated communications technologies means that new financial relationships among libraries, publishers, online networks, and the vendors of services and equipment will have to be erected in a manner that makes economic sense for them all. Libraries and publishers still have to work out who owns information and how, in an age when data arrives in a constant stream, it is to be maintained and upgraded for library users.

And that is only the tip of the iceberg. For academic and research librarians themselves there are a host of nettlesome puzzles. The rising cost of publications and of collecting electronic data has made it evident that no single library can hope to own everything; resources will have to be shared. But who holds what, how it's made available, and how it's paid for remain uncertain. For that matter, the sheer growth in the availability of knowledge and the speed with which it is being produced are challenging libraries' ability to handle it all.

As they make more use of innovative technology, academic and research libraries are also finding that meeting their users' needs is growing more complicated. Not only do scholars in the humanities work differently from those in the sciences, but some find the pace of change in the tools available for research deeply unsettling, while others chafe at libraries' deliberation in adopting them. As libraries find themselves pressed to reallocate scarce funding to new resources, they are having trouble maintaining their acquisition of books and periodicals, and so are drawing the anger of their more tradition-minded users. If they are to meet their users' needs, in other words, libraries will clearly have to launch a concerted effort to study them more closely.

Nor are academic libraries alone in facing change; so are the librarians who help them function. There is mounting pressure on them to be specialists in their respective academic fields, which in turn is requiring an entirely new way of looking at the training required for information professionals. The problem is that some of the leading library schools in the country have either been shut down recently or are threatened with closure, making it unclear how that challenge will be met. Academic librarians now face the problem of promoting libraries' cause not just within their parent institutions, but within the scholarly world as a whole.

For public libraries, adapting to the changing needs of the communities they serve and to the growth of the information society is proving equally disruptive. Public libraries have been forced to decide how to respond to towns and cities grappling with demographic change, cultural diversity, changing families, shifting economies and job markets, a fraying social order, stressed neighborhoods, and decaying infrastructure. Over the last few years, many libraries have moved to tackle those issues head-on, working with community groups to explore what specific information they need to do their jobs, or establishing adult literacy programs, after-school reading programs for latchkey children, and reading kits for new mothers.

As crucial as those efforts are, though, they raise unfamiliar dilemmas for librarians. Limited resources mean that for every new program that is developed, a traditional library function tends to suffer. Librarians steeped in the practice of collection development are not accustomed to becoming community outreach workers overnight. Politicians used to thinking of libraries as a safely innocuous service don't always take it kindly when they become agents of community change.

Library directors trying to push their institutions in new directions are groping their way through all of these developments with no models to follow, few precepts to guide them, and a host of questions that need to be answered. If, for instance, they are to serve a culturally diverse clientele, do they have enough understanding of the cultures their clients represent to provide them with adequate service? And if libraries can play a role in advancing literacy and furthering economic development, how can they do so without threatening their

ability to deliver the materials that people want? Answering those questions will entail not just learning more about public libraries' users and their needs and wants, but learning which yardsticks to use in measuring success: is it the size of a collection that counts, or the savings to society of making sure that an illiterate child does not grow up to become an illiterate adult?

As with academic and research libraries, new technology is bringing benefits and dilemmas in equal measure. On the one hand, it is making libraries more accessible to people they have never been able to reach in the past, and is giving library patrons a chance to do research that would be impossible otherwise. On the other hand, the managerial questions raised by technology are no easier than those raised by community responsibility. Technology costs money, but if public libraries start charging a fee for such services, what will be the impact on their historic role of providing free, equal access to information? What should the library's role be in avoiding a community separated into those who can afford information and those who cannot? As libraries develop networks that link them to each other, should they invest local tax dollars in developing databases that might eventually become available to anyone in the state, or even the country?

As Eleanor Jo (Joey) Rodger, director of the Urban Libraries Council, puts it, "It's not that technology spells the doom of the public library, it's that we need to understand the core of the business we're in as a publicly funded distribution system, identify the factors that affect the distribution system in the private and public sectors, and figure out how to ensure public funding for that chunk of it that is in the public interest."

These are questions with which, until recently, the Council probably would not have concerned itself; historically, it has focused much of its attention on academic and research libraries, believing that it could make its greatest contribution by helping them develop an infrastructure of knowledge that would then become freely accessible to all. But that is no longer enough.

The urgency of addressing the issues facing libraries of all sorts and the potential that technology brings for linking public to academic libraries create a need for an organization that can serve the library field as a whole. That is what the Council has set out to do.

In helping libraries tame these frontiers, the Council will be relying on the experience it has acquired over the decades since its beginning. It knows how to identify promising projects and lend its authority to make sure they get the attention they deserve. It is practiced at seeking path-breaking work that can point the way for the bulk of the library community to follow. It understands how to bring libraries and funders together, and how to articulate areas of concern that others, with greater resources, can address. And it has gained the wisdom to ensure that the work it funds illuminates the needs that libraries themselves must address if they are to strengthen their contributions to the people they serve.

All of the hard questions posed to libraries by the new information order and by the social changes they must grapple with are also opportunities. Libraries have the potential to become gateways to the vast information resources that this country needs to move forward with confidence; more than any other institution in society, they are equipped to make them available to the largest possible audience. In the end, just as the Council itself is a catalyst for progress among libraries, so it can help libraries to be catalysts in their turn, assisting current and future generations of citizens in becoming independent problem solvers with the knowledge and the information they need to overcome any challenge.

COUNCIL ON LIBRARY RESOURCES
SELECTED CHRONOLOGY OF PROJECTS

1956 Ford Foundation establishes the Council

1957 First of many grants to American Library Association to establish and support the Library Technology Project, a continuing program of research, testing, and standardization of library materials and equipment

First of many grants to William J. Barrow and the Barrow Laboratory for investigations relating to the preservation of books and permanence of book papers: eventually determined causes of paper deterioration and developed permanent/durable book papers

1958 Grant to National Library of Medicine to mechanize *Current List of Medical Literature (Index Medicus)*, which resulted in MEDLARS

First of several grants to Library of Congress to create *National Union Catalog of Manuscript Collections*

First of several grants made over a 35-year period to the Library of Congress to investigate the feasibility of, develop, implement, and subsequently evaluate the Cataloging in Publication Program

1959 First of several grants for preparation of the third and final edition of *Union List of Serials in Libraries of the United States and Canada*, supplemented by *New Serial Titles*

1960 Grant to International Federation of Library Associations and Institutions (IFLA) for international conference on cataloging that resulted in the "Paris Principles," an agreement on uniformity of practice

1961 With the National Science Foundation, CLR begins long-term support of American National Standards Institute (ANSI) Committee Z39 on Library Work, Documentation, and Related Publishing Practices, which develops standards for practices and methods in the field of library work, in the preparation and utilization of documents, and in those aspects of publishing that affect library methods and use

Grant to the American Library Association to launch *Choice*, a monthly book-selection service for academic and public libraries

1964 Publication of CLR-funded report on possibilities for automation at the Library of Congress

1965 Grant to the Library of Congress to facilitate the establishment of the *National Register of Microform Masters*

1966 Funding provided for a machine-readable cataloging (MARC) feasibility study and for catalog data studies to create specific procedures required for the distribution products

Grant to enable Richard Smith to develop a non-aqueous deacidification method for paper preservation

1967 Grants to the New England Board of Higher Education to explore the application of MARC tapes for library cooperation; followed by a 1971 grant to study feasibility of transferring the Ohio College Library Center (OCLC) system to other groups of libraries

Books for College Libraries (ALA) is published with CLR support

Anglo-American Cataloging Rules is published with CLR support

1968 Beginning of CLR Fellowship Program, which provided research opportunities for librarians for over a decade; followed by Faculty/Librarian Cooperative Research Program, which continues to the present

1969 Project MARC (later MARC Distribution Service), funded by CLR, begins the sale of magnetic tapes containing cataloging information in a standard format, including all English-language monographs cataloged by the Library of Congress

CLR and the National Endowment for the Humanities begin ten-year College Library Program, designed to bring the library into a central role in the education of undergraduates

1970 First of several grants by CLR and the U.S. Office of Education to help OCLC develop its computerized regional library system

Association of Research Libraries' Office of Management Services (OMS) is established with CLR funding

1971 International Federation of Library Associations and Institutions (IFLA), with support from CLR through 1981, establishes permanent secretariat for its Committee on Cataloging, which serves as a center for international coordination and standardization of cataloging rules; also establishes international system for organized exchange of bibliographical information in standard format

IFLA strengthens its headquarters secretariat with support from CLR; ongoing support enables IFLA to become the most effective vehicle of international library cooperation

1972 International Standard Serial Number (ISSN) developed from U.S. standard for serial numbering developed by CLR-supported ANSI Committee Z39; CLR staff worked for its implementation in the U.S. and internationally

CLR and the National Endowment for the Humanities provide funding for BALLOTS (ultimately the Research Libraries Information Network) to assist in bringing this automated bibliographic control system to operational status

1973 Grant to Washington Library Network (WLN) to continue development of its statewide computerized library network for regional sharing of resources

New England Document Conservation Center (later Northeast DCC) established with CLR funding

1974 CLR assumes initial management and funding role in CONSER (Conversion of Serials) program, established in order to create a comprehensive bibliographic database of serials in machine-readable form

CLR gives consultative support and grant to SOLINET, a new regional library network

CLR Academic Library Management Intern Program begins; 55 interns participate through 1993

1978 *Anglo-American Cataloguing Rules*, 2nd edition, published with CLR support

Beginning of Bibliographic Service Development Program (BSDP), a multi-year program with the goals of improving bibliographic products, controlling costs of technical processes in individual libraries, and improving access to information by all users

1980 CLR (BSDP) begins funding the Linked Authority Systems Project (later Linked Systems Project) to establish requirements and develop specifications for hardware and software required for telecommunications and machine interchange of records among bibliographic networks and the Library of Congress

CLR (BSDP) begins efforts to coordinate evaluation of online public access catalogs in order to produce comparative data on existing systems and guide future online catalog development

CLR (BSDP) supports investigation and development of a thesaurus for art and architecture, which becomes a model tool

1982 CLR (BSDP) provides grant to Rutgers University for the construction of an international inventory of machine-readable texts in the humanities

1983 Partial support for Association of American Publishers project to develop industrywide standards for preparing and processing electronic manuscripts

Partial support for the CONSER Abstracting & Indexing Coverage Project, managed by the Association of Research Libraries and based at the Library of Congress, to enhance serial bibliographic records

CLR creates the Committee on the Records of Government, which identified issues and recommended solutions for government records management, particularly for electronic information

1985 ANSI/NISO Z39 standard on permanent paper published; supported by CLR grant

CLR provides initial funding for Mid-Atlantic States Cooperative Preservation Service (MAPS)

1986 Publication of *Brittle Books*, reports of the CLR Committee on Preservation and Access

CLR provides support for an international Conference on Preservation of Library Materials, which launched the IFLA core program for Preservation and Conservation

Commission on Preservation and Access is established with CLR support; it becomes a separate organization in 1988

CLR publishes *The Economics of Research Libraries*, which provides library managers with information on using cost data for strategic planning, budgeting, and forecasting

1987 CLR, the Andrew W. Mellon Foundation, the National Endowment for the Humanities, the Exxon Education Foundation, and the Library of Congress sponsor production of *Slow Fires*, a film calling for increased awareness of the need to preserve the human record

1988 CLR provides funds to establish an IFLA Fellows program named after Robert Vosper, CLR Board Member, which encourages interest in international aspects of librarianship and gives visibility and support to IFLA's core programs

1989 CLR hosts conference and conducts studies for the National Science Foundation to explore selected aspects of scientific and engineering communication, resulting in publication of *Communications in Support of Science and Engineering*

Support to Association of Research Libraries for studies of serial pricing

1990 CLR awards strategic planning and policy grants to Columbia University, Harvard University, the Triangle Research Libraries Network, and the State University of New York Center Libraries

1991 Grant to Urban Libraries Council for partial support of invitational seminar on public library financial practices; *Balancing the Book$* is based on the papers and discussions, while *Keeping the Book$* summarizes a U.S. Department of Education study on exemplary public library financial practices

Support for a Strategic Visions Steering Committee to explore issues related to the library profession in the electronic age and to draft vision and value statements for discussion with the broader library community

1992 CLR and Engineering Foundation host conference to explore the potential for developing a plan to improve the effective use of engineering information and data; the report, *Exploration of a National Engineering Information Service*, is published

Association of College and Research Libraries' College Library Director Mentor Program begins with CLR support

With the Getty Art History Information Program, the American Council of Learned Societies, the Coalition for Networked Information, and the Research Libraries Group, CLR cosponsors a conference on "Technology, Scholarship, and the Humanities"

1993 Grant to Rutgers University to develop and apply tools and procedures for measuring costs and benefits of diverse library functions

To investigate the role of the library in teaching within a multimedia environment, CLR provides partial support for a project at Rice University to develop materials for an undergraduate course within the university's electronic studio project

CLR begins concerted effort to encourage a national engineering information initiative

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ACCESS AND PROCESSING

The rapid increase in the amount and availability of information, the variety of means by which that information can now be delivered, and the concomitant and increasing costs for acquiring and processing information challenge the traditional processing and access activities of libraries. The Council on Library Resources has continually sought to improve the methods by which libraries acquire, organize, store, retrieve, reproduce, and make available information for efficient use by the communities they serve. That use may be to answer questions, to solve problems, or for an individual's personal or professional development. The Council's current access and processing program seeks to create ongoing mechanisms that enhance access to information by encouraging improvement in the internal processes performed by our libraries so that the resources invested in libraries are used more efficiently and effectively.

Information Search Process

System developers are continually trying to improve the tools and processes that help library users obtain access to the information they seek. In order to make improvements in the tools, developers and managers need to know how users are getting their information now, the limitations that exist in current systems, and what system features are most useful to individuals.

Martha Andrews conducted a study of the information needs of geology and geography graduate students, research associates, and faculty. Traditional sources such as conversations with colleagues, references at the end of articles, and personal collections are still their main information sources.

The interdisciplinary nature of library users' research interests was investigated by Laura Bartolo and Timothy Smith. They compared the impact of manual and online search methods on the interdisciplinary search task in terms of the relevance of retrieved items, user effort, user satisfaction, user confidence, and future use. The results indicated that online search methods are more effective than manual searches when users are working outside their areas of specialization.

Ann Bishop is exploring how engineers in the aerospace industry utilize electronic communications. Preliminary results suggest that networks are used widely for both internal and external communications. However, network use is currently limited by its inability to convey the multifaceted information needed by engineers to address complex problems.

Many users get rather poor results when searching CD-ROM databases, reported F.W. Lancaster and his colleagues from the University of Illinois at Urbana-Champaign Graduate School of Library and Information Science. Searches performed by faculty and graduate students were compared both with searches conducted by an experienced education librarian and with those conducted by a team of experienced searchers. While the library users did find pertinent items, they did not find them all, nor did they find the best.

While Lancaster compared user searches with those of experienced searchers, Gary Marchionini and his research team examined the searching behavior of professional search intermediaries and subject experts. The researchers determined that the domain experts were content-driven and used technical query terms based on their knowledge, while the search experts were problem-driven and used system features to refine their results. System designers will need to take both types of users into account when making improvements to their systems.

Maxine Reneker's dissertation was a study of the information-seeking activities of thirty-one members of the Stanford University academic community. Using a naturalistic approach, Reneker recorded the information needs they experienced, how they went about answering them, the sources of information they used, and their level of satisfaction with the information. The picture that emerged from the study was that the individuals were active information seekers who see their information environment in a positive light. They seek information as a result of a need, and there is a dynamic relationship between the environment, information sources, and the articulation of a need.

Catholic University investigators Ingrid Hsieh-Yee and Tom Marcum have been funded to study how faculty members seek information and how they use an online system. The project objectives include determining how information-seeking patterns are related to discipline, how online systems facilitate faculty information seeking, and how faculty use the online system. Data on faculty members at four

institutions sharing a common online system will be gathered, and results are expected in 1994.

A study of the information-seeking process among a select group of social science and medical faculty researchers in the field of population studies is being conducted by L. Terri Singer, now at the University of South Florida, and Kenneth H. Hill at Johns Hopkins University. This study is comparing researcher and librarian searches of the CD-ROM POPLINE, a database on population and family planning. Results are expected in late 1993.

Bibliographic Control

Begun in 1971, the Library of Congress' Cataloging in Publication (CIP) program provides prepublication cataloging records for the books most likely to be acquired by libraries. Findings from a survey of CIP beneficiaries were prepared by SKP Associates and published in 1993 by the Library of Congress. Libraries of all types were surveyed; librarians, publishers, and MARC tape recipients all agreed that the program continues to be a valuable one. The Council supported this survey of two decades of CIP and had supported a similar study conducted after CIP's first ten years of operation. The Council was also instrumental in the establishment of the CIP program. Results from the 1993 study indicated that the scope and quality of the data are above average, and savings in cataloging costs for libraries are significant. The challenge for the program in the coming year will be to demonstrate its ability to respond to the diversity of CIP users and the demands of a changing publishing environment.

How best to catalog cooperatively continues to challenge the library community. As technologies change and systems improve, cataloging personnel and their managers must adjust to new priorities and workflows. Each decade brings different perspectives on how to share the burden of providing bibliographic descriptions and access to an increasing number of new publications that appear each year in an increasing array of different formats. This year, a Cooperative Cataloging Council was established to develop a strategic plan for cooperative cataloging among the nation's libraries. The effort came out of a joint meeting of representatives from the National Coordinated Cataloging Program and the CONSER Program, who saw the need for a model program that would take the best from existing programs and set the stage for a more cost-effective, participatory process. A mission statement was prepared, goals were established, and several task forces were formed to address specific issues. CLR provided support for a planning meeting of the group in April 1993, and task forces are continuing their work throughout the summer and fall of 1993.

One of the new forms of publication for which access mechanisms need to be developed is preprints. Katherine Branch reported on a Yale University project to establish an alternative electronic distribution system for mathematics preprints that also included an exploration of how electronic distribution affects use. Key findings included identification of the technical barriers to access and assessment of some sociological issues of scientific communication.

Henry Snyder and Heidi Hutchinson conducted a comparative and analytical study of cataloging rules employed in Europe for an older form of publication, materials printed by use of a hand press. This report was prepared for the working group appointed by the organizers of the Munich 1990 Conference on Retrospective Cataloging and Conversion in Europe.

Françoise Bourdon, a Vosper Fellow, also looked at broader cataloging issues by investigating name authority control at the international level. Her study included an examination of the existing document on name authority files and eight automated files. She identified the problems encountered in exchanging authority data at the international level and recommended action by the appropriate national and international agencies.

The distribution of responsibilities for accessioning and indexing arctic regions information is being investigated by Martha Andrews through a grant to the University of Colorado. Data have been collected to identify overlapping coverage and absence of coverage of the arctic literature in databases of the polar/cold regions area. A plan of action for the providers of and contributors to the databases will be detailed in order to rationalize the process of data gathering and identification among interested institutions and services, both nationally and internationally.

Indexing overlap and consistency between art and architecture indexes were examined by Angela Giral and Arlene Taylor. Although 71 percent of the sample articles in two secondary sources covering architecture and related infor-

mation were from journals indexed in common, there were numerous differences in article selection, title identification, and access points. If collaboration between the two sources is desired, agreements on such issues as selection criteria, description guidelines, and descriptor terminology will need to be reached.

Vocabularies and Thesauri

Laura Stalker supplied the minutes of the first Conference on Reconciliation of Form and Genre Terminology, partially supported by CLR, which brought together representatives of the major published vocabularies of form and genre terms. Form terms (e.g., diaries, directories, memoranda, questionnaires) designate specific kinds of materials distinguished by physical character, subject, or order of information. Genre terms for textual materials (e.g., biographies, essays, hymns, reviews) designate the style or technique of the intellectual content of textual materials. The conference was held to develop a philosophy and a process for reconciling terms representing form and genre from different controlled vocabularies. In information retrieval systems, distinctions are needed among materials themselves, representations of those materials, and works about the materials. The conference participants reconciled almost thirty terms and established a working procedure for discovering and reconciling term conflicts.

A study to investigate the feasibility of creating a thesaurus for engineering and scientific terms was conducted by Pat Molholt, David Batty, and Cathy Whitehead. They examined the 1967 *Thesaurus of Engineering and Scientific Terms (TEST)* to determine what would be required to use that vocabulary as the basis of a new thesaurus. Their conclusion was that a new thesaurus is warranted, timely, and technically possible, and should be modeled on the *Art and Architecture Thesaurus (AAT)*.

The Music Library Association is also investigating the use of the *Art and Architecture Thesaurus (AAT)* as a subject-specific model vocabulary. Harriette Hemmasi, investigating for Rutgers University, is creating a preliminary music thesaurus utilizing the Anderson Rowley Information Systems (ARIS) software. The overall intent of the project is to increase access to the *Library of Congress Subject Headings (LCSH)* for music materials.

Marcia Bates continued her investigation of expanded access vocabulary for the machine-readable *Library of Congress Subject Headings (LCSH)*.

Preservation

Brittle books are a problem not only for large research and national libraries; they also are found in college libraries. Janet Gertz, Charlotte Brown, Jane Beebe, Daria D'Arienzo, Floyd Merritt, and Lynn Robinson investigated preservation and collection management at liberal arts college libraries. The investigators conducted surveys in three college libraries using a typology methodology defined by Ross Atkinson to determine materials in need of preservation. The results were that significant numbers of brittle low-use volumes were held in the libraries and some of the volumes were materials not widely held, even by research libraries.

Lois Olcott Price, Senior Conservator of the Conservation Center for Art and Historic Artifacts, is preparing a manuscript on the fabrication and preservation of American architectural drawings to 1930. The project's objective is for improved preservation and collection care for architectural drawings and photo reproductions of them through a better understanding of the materials and techniques used in their fabrication. Publication is expected in early 1994.

The United States Agricultural Information Network (USAIN) is proposing a national program to preserve in the original or in an archivally sound format—and to make readily accessible to scholars, researchers, students, and scientists—the most important pre-1950 published literature and the primary unpublished resources that together document the history of the agricultural sciences in the United States. Land-grant institutions, the National Agricultural Library, and other libraries, societies, and archives with important historical collections will participate in the program. The Council provided partial support for an Advisory Panel on Preservation to consider how best to preserve the agricultural science literature. The panel engaged Nancy Gwinn to facilitate the planning process and to draft a national preservation plan.

Collection Development

In her final report to CLR on a study of access versus ownership issues in five libraries, Sheila Intner concluded

that collection development librarians are, for the most part, still deeply committed to perceiving needed materials primarily in terms of printed books and journals, and attempt to the best of their abilities to buy them all. The study population included administrators and collection development staff. Recognizing the limitations of case studies and changing environments, Intner noted that this observation cannot be generalized to the full library community but suggests that these thoughts are echoing in other places. While some study participants may agree that the access function of libraries will grow, others point out that there will continue to be a need for some organization somewhere to collect, organize, and maintain recorded knowledge. Many study participants also do not believe that libraries have either the resources or the will to implement new technologies that have the potential to improve access. Recommendations for the first steps toward an access versus ownership decision-making model are provided.

Use of Technology

The use of technology to provide cost-effective cataloging training was explored by the National Agricultural Library in its development of a hypertext tutorial for the descriptive cataloging of computer files. The experimental tool and project were described in an article by Sarah Thomas. The evaluators were enthusiastic about the potential of such a tool and recommended that other such experiments be undertaken.

Virginia Tiefel visited personnel in thirteen institutions to examine innovative applications of technology to public services in libraries. She developed seventeen criteria to examine the specific applications, and provided descriptions of each of the projects. There is a perception in the profession that libraries require users to know or learn how libraries are organized, so many of these projects are trying to develop systems that are easy for patrons to use. Their goals and objectives include the provision of information to users regardless of their location or the material's format. The libraries have been proactive in the development of the systems in order to ensure their leadership in information technologies and to establish their roles and responsibilities within their organizations.

The Future Catalog

An ongoing research project that has been looking at how to develop an online catalog search system that incorporates aids for clustering and organizing useful retrieval sets is being conducted at the Computer Science Department of Indiana University of Pennsylvania, under the direction of Mary Micco. The system takes advantage of the data included in a bibliographic record, tables of contents, and expert system technology to improve subject access for catalog retrieval. The project has been developed in phases increasing in complexity and scope. With each phase, the feasibility of the concept has been tested and limitations imposed by software and hardware have been examined.

An exploration into the library catalog of the future is being conducted for the Council by Charles Hildreth. He is investigating what form the next generation catalog will take, which projects currently being conducted are potential models for this new catalog, and what characteristics are needed to transform the current static catalog into a dynamic information access and delivery system.

The concept of the digital library or electronic information center is being actively considered by many organizations. In order to provide the necessary background information for developing plans related to the electronic library, the Council has contracted with the University of Michigan's School of Information and Library Studies to conduct an analytical review of the literature on the future library.

COMMITTEES

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"Visions Listserv." Final Report. Submitted by Don L. Bosseau, San Diego State University, March 29, 1993.

PROGRAM GUIDELINES AND GRANT APPLICATION PROCEDURES

The Council on Library Resources supports work by individuals and organizations on matters pertinent to libraries and information services, with a primary objective to improve their quality and performance. Since the Council's programs are broad and its program descriptions general, there is continuing refinement and adjustment to the scope of projects funded. Individuals with specific interests and expertise are encouraged to take the initiative and propose for consideration projects within the program areas described in this report: human resources, the economics of information services, infrastructure, and access and processing.

In addition to the general program grants, the Council sponsors the CLR Fellows program and the Cooperative Research program, both of which encourage research projects and the development of research skills by individual professionals. The programs are described in brochures available from CLR.

While CLR, in consultation with its advisors, often initiates and promotes work in its program areas, exploratory correspondence and conversation are always welcome, and all proposals receive careful consideration.

Advice to Applicants

The most efficient means to contact the Council is with a letter or electronic communication. Initial inquiries should state the purpose of the work, indicate methodology, establish the credentials of the responsible individuals, and provide an estimate of the total costs and funding requirements. Enough information should be provided to enable CLR staff to determine whether or not the inquiry falls within the Council's program interests. Letters of application will be briefly acknowledged upon their receipt, but because CLR prefers to operate with a small staff, detailed responses may take more time. If substantive replies are not received within a reasonable period of time, applicants should feel free to make a follow-up inquiry. There are no submission deadlines for general program grants, but the special programs have announced deadlines.

If subsequent exploration seems justified, preparation of a complete proposal will be suggested. Full documentation should include:

1. A concise description of the proposed project.
2. A thorough explanation of the work to be done, including project objectives and background information on the need for the project.
3. Specific methodology to be used.
4. A timetable for the project.
5. A detailed budget linking costs to project components.
6. Plans for evaluation of the project and dissemination of project results.
7. Concise and pertinent curricula vitae of the principal investigators.

Proposals are first reviewed by CLR staff and, when necessary, external technical advisors. All proposals are considered for relevance to current CLR interests and activities; relationship to other, similar work; projected costs in the context of the work described; and importance of anticipated results. The Council also looks for evidence of institutional support, including cost sharing. Grant applications are generally reviewed also by an external proposal review committee, and proposals over $25,000 need approval from the CLR Board of Directors, which meets twice a year (May and November). However, even proposals that are to be recommended for Board approval cannot in every case be reviewed at the first meeting following their receipt. All inquiries and proposals are reported to the Board, including those declined at the staff and review committee level.

Exclusions

The Council does not provide support for construction, renovation, or other capital improvements. Support is not provided for collection acquisitions, routine operating costs, activities judged to be of limited influence, or work that essentially repeats previous research. CLR does not fund indirect costs. Equipment purchases are also generally not supported, unless integral to a research project.

Contact

Inquiries should be addressed to Julia C. Blixrud, Program Officer, Council on Library Resources, 1400 16th St., N.W., Suite 510, Washington, DC 20036 (202-483-7474 voice, 202-483-6410 fax, clr@cni.org Internet)

ACTIVE PROJECTS
FINANCIAL STATEMENTS

GRANTS AND CONTRACTS ACTIVE IN FISCAL 1993 (unaudited)

	Unpaid 6/30/92	FY 1993 Grants and Contracts (Adjustments)	FY 1993 Payments (Refunds)	Unpaid 6/30/93
American Association of Engineering Societies *Washington, D.C.* Planning a thesaurus of engineering and scientific terms	9,750	-0-	8,250	1,500
American Library Association *Chicago, Ill.* Standards for ethical conduct for rare book, manuscript, and special collections librarians	1,800	-0-	1,800	-0-
Association of Research Libraries *Washington, D.C.* ARL visiting program officer to improve interlibrary loan and document delivery services	-0-	10,700	-0-	10,700
Interlibrary loan cost study	2,900	-0-	-0-	2,900
Marcia Bates *Van Nuys, Calif.* Examine the possibility of expanded entry vocabulary for Library of Congress subject headings	6,000	-0-	-0-	6,000
California State University *Chico, Calif.* Packet radio Internet extension	1,048	-0-	-0-	1,048
Catholic University of America *Washington, D.C.* The information-seeking patterns of faculty members and their use of an online system	-0-	3,513	-0-	3,513
College of William and Mary *Williamsburg, Va.* Scholarly humanities communication in the electronic age	-0-	1,725	1,725	-0-
Columbia University *New York, N.Y.* Recasting scientific information delivery	50,000	(7,694)	-0-	42,306
Conservation Center for Art and Historic Artifacts *Philadelphia, Pa.* Research on the preservation and fabrication of American architectural drawings to 1930	1,916	-0-	-0-	1,916

	Unpaid 6/30/92	FY 1993 Grants and Contracts (Adjustments)	FY 1993 Payments (Refunds)	Unpaid 6/30/93
Earlham College *Richmond, Ind.*				
Determining factors leading Earlham College graduates to enter library schools	1,000	(56)	944	-0-
Eckerd College *St. Petersburg, Fla.*				
College library director mentor program	16,000	-0-	12,000	4,000
Georgetown University *Washington, D.C.*				
Support for the Strategic Visions Steering Committee	5,000	(3,694)	1,306	-0-
Harvard University *Cambridge, Mass.*				
Strategic planning process	50,000	-0-	-0-	50,000
Charles R. Hildreth *Seattle, Wash.*				
Study of functionality of online catalogs	11,000	-0-	1,000	10,000
Indiana University of Pennsylvania *Indiana, Pa.*				
Hypermedia for improved subject access	-0-	6,600	5,500	1,100
Vocabulary control tools for online searching	-0-	54,852 (40,000)	12,000	2,852
International Federation of Library Associations and Institutions *The Hague, Netherlands*				
IFLA Fellows program	40,000	-0-	40,000	-0-
Japan Information Access Project *Washington, D.C.*				
Symposium on access to, use of, and demand for Japanese information	500	-0-	-0-	500
Johns Hopkins University *Baltimore, Md.*				
Information-seeking process among population studies researchers	-0-	4,000	3,500	500
Knowledge management: expanding the scholarly role of research libraries	22,897	-0-	-0-	22,897
Kansas State University *Manhattan, Kans.*				
National preservation plan for the historical literature of agriculture	-0-	7,000	6,250	750

	Unpaid 6/30/92	FY 1993 Grants and Contracts (Adjustments)	FY 1993 Payments (Refunds)	Unpaid 6/30/93
Library of Congress *Washington, D.C.*				
East European bibliographies and European networks conference	875	-0-	875	-0-
Inaugural meeting of the Cooperative Cataloging Council	-0-	1,961	-0-	1,961
Long Island University *Brookville, N.Y.*				
Complete study of the effects of integrating information technologies on job classification and compensation systems	3,855	(184)	3,671	-0-
An analytical bibliography on library and information science education	-0-	3,000	-0-	3,000
National Information Standards Organization *Bethesda, Md.*				
Development of technical standards for the preservation of library materials	10,000	-0-	-0-	10,000
Queens College *Flushing, N.Y.*				
Seminar series on mapping curricular revision	-0-	6,600	3,500	3,100
Maxine H. Reneker *Palo Alto, Calif.*				
Information seeking among members of an academic community	500	-0-	500	-0-
Rice University *Houston, Tex.*				
The Rice humanities electronic studio	-0-	65,000	30,000	35,000
Rutgers University *New Brunswick, N.J.*				
Study of the costs and beneficial impacts of library functions	-0-	97,612	25,000	72,612
SKP Associates *New York, N.Y.*				
Evaluation of the Cataloging in Publication program	12,500	-0-	12,500	-0-
Simmons College *Boston, Mass.*				
Study of the decision-making process for collection development in libraries	859	(466)	193	-0-
Special Libraries Association *Washington, D.C.*				
Development of continuing education course on total quality management	6,000	-0-	-0-	6,000

	Unpaid 6/30/92	FY 1993 Grants and Contracts (Adjustments)	FY 1993 Payments (Refunds)	Unpaid 6/30/93
State University of New York *Buffalo, N.Y.*				
Cooperative planning grant	50,000	-0-	50,000	-0-
Study of journal use survey participation	-0-	1,650	1,650	-0-
University of California *Berkeley, Calif.*				
History of the Japan Library School as part of U.S. foreign information policy	-0-	2,500	2,500	-0-
University of California *Los Angeles, Calif.*				
Elucidation and validation of the knowledge used by reference librarians	1,330	(439)	-0-	891
Technology and structure of research libraries	1,000	-0-	-0-	1,000
University of California *Riverside, Calif.*				
European Short Title Catalogue	16,500	-0-	16,500	-0-
Meeting on standardization of bibliographic form and genre terminology	1,000	-0-	1,000	-0-
University of Colorado *Boulder, Colo.*				
Distributing responsibilities for accessing and indexing polar regions information	15,190	-0-	12,000	3,190
University of Illinois *Chicago, Ill.*				
Users' persistence in scanning postings in an online public access catalog	1,330	-0-	-0-	1,330
University of Illinois *Urbana, Ill.*				
A history of Argentina's National Library under the directorship of Hugo Wast, 1931-1955	500	(1,191)	(691)	-0-
Study of searching strategies on CD-ROM	2,512	(3,552)	(1,040)	-0-
University of Michigan *Ann Arbor, Mich.*				
The library of the future: an analytical report and bibliography	-0-	7,000	6,000	1,000
University of North Carolina *Chapel Hill, N.C.*				
Cooperative information resources development	50,000	(10,000)	40,000	-0-

	Unpaid 6/30/92	FY 1993 Grants and Contracts (Adjustments)	FY 1993 Payments (Refunds)	Unpaid 6/30/93
University of Pittsburgh *Pittsburgh, Pa.* Examination of the effects of integrating information technologies on job classification and compensation systems	1,560	-0-	1,560	-0-
University of South Carolina *Columbia, S.C.* Study of the knowledge and skills required for health information professionals	1,616	-0-	1,616	-0-
Urban Libraries Council *Evanston, Ill.* Seminar on successful public library financial practices	500	(60)	440	-0-
Virginia Polytechnic Institute and State University *Blacksburg, Va.* Blacksburg electronic village project	-0-	9,665	-0-	9,665
Yale University *New Haven, Conn.* Instant mathematics preprint project	1,500	(1,500)	-0-	-0-
Current year adjustments; other refunds and adjustments from prior year's grants and contracts	-0-	(297)	(297)	-0-
Totals	$400,018	$281,378 (69,133)	$305,980 (2,028)	$310,131

INDEPENDENT AUDITORS' REPORT

TO THE BOARD OF DIRECTORS
COUNCIL ON LIBRARY RESOURCES, INC.
Washington, D.C.

We have audited the balance sheet of COUNCIL ON LIBRARY RESOURCES, INC. (the "Council") as of June 30, 1993, and the related statements of revenue, expenses and changes in fund balance, and cash flows for the year then ended. These financial statements are the responsibility of the Council's management. Our responsibility is to express an opinion on these financial statements based on our audit. The financial statements of the Council as of June 30, 1992, were audited by other auditors whose report dated August 20, 1992, expressed an unqualified opinion on those statements and are included for comparative purposes only.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the 1993 financial statements referred to above present fairly, in all material respects, the financial position of COUNCIL ON LIBRARY RESOURCES, INC. as of June 30, 1993, and the results of its operations and its cash flows for the year then ended in conformity with generally accepted accounting principles.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The accompanying supplementary information is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Hoffman Dyker? Fitzgerald, P.C.

Vienna, Virginia
August 20, 1993

Council on Library Resources, Inc.

BALANCE SHEET

JUNE 30, 1993
(With Comparative Totals For 1992)

	1993	Totals 1992
ASSETS		
Cash and cash equivalents	$ 208,056	$ 377,267
Investments	1,782,386	2,438,355
Grants receivable:		
Unrestricted	300,000	600,000
Restricted	213,000	200,000
Other assets	16,984	8,980
	$ 2,520,426	$ 3,624,602
LIABILITIES AND FUND BALANCE		
Accounts payable and accrued expenses	$ 17,567	$ 13,536
Grants and contracts payable:		
Unrestricted	65,396	116,640
Restricted	244,935	283,398
Deferred revenue:		
Unrestricted	600,000	900,000
Restricted (Note C)	142,131	337,852
Total liabilities	1,070,029	1,651,426
FUND BALANCE:		
Designated by Board of Directors (Note B)	939	47,589
Undesignated	1,449,458	1,925,587
Total fund balance	1,450,397	1,973,176
	$ 2,520,426	$ 3,624,602

SEE NOTES TO FINANCIAL STATEMENTS

Council on Library Resources, Inc.

STATEMENT OF REVENUE, EXPENSES AND CHANGES IN FUND BALANCE

FOR THE YEAR ENDED JUNE 30, 1993
(With Comparative Totals For 1992)

	Unrestricted	Restricted	Total 1993	Totals 1992
REVENUE:				
Grants and contracts	$ 300,000	$208,721	$ 508,721	$ 501,343
Interest	118,605	2,047	120,652	216,304
Total revenue	418,605	210,768	629,373	717,647
EXPENSES:				
Program:				
Research	–	27,864	27,864	155,458
Human resources	156,840	41,371	198,211	163,824
Access and processing	159,351	(13)	159,338	154,019
Economics	83,124	141,546	224,670	119,642
Infrastructure	242,383	–	242,383	149,405
Total program expenses	641,698	210,768	852,466	742,348
Administration	299,686	–	299,686	403,355
Total expenses	941,384	210,768	1,152,152	1,145,703
EXCESS (DEFICIENCY) OF REVENUE OVER EXPENSES	(522,779)	–	(522,779)	(428,056)
FUND BALANCE, BEGINNING OF YEAR	1,973,176	–	1,973,176	2,401,232
FUND BALANCE, END OF YEAR	$1,450,397	$ –	$1,450,397	$1,973,176

SEE NOTES TO FINANCIAL STATEMENTS

Council on Library Resources, Inc.

STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED JUNE 30, 1993
(With Comparative Totals For 1992)

	Totals	
	1993	1992
CASH FLOWS FROM OPERATING ACTIVITIES:		
Excess (deficiency) of revenue over expenses	$ (522,779)	$ (428,056)
Adjustments to reconcile deficiency of revenue over expenses to net cash used in operating activities:		
Amortization of investment (discounts) premiums	(5,464)	415
(Increase) decrease in grants receivable	287,000	(800,000)
Decrease in other assets	12,946	42,108
Increase (decrease) in accounts payable and accrued expenses	4,031	(3,110)
Decrease in grants and contracts payable	(89,707)	(98,513)
(Decrease) increase in deferred revenue	(495,721)	693,757
Total adjustments	(286,915)	(165,343)
Net cash used in operating activities	(809,694)	(593,399)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of investments	(1,459,517)	(1,003,994)
Sale of investments	2,100,000	1,500,000
Net cash provided by investing activities	640,483	496,006
NET DECREASE IN CASH AND CASH EQUIVALENTS	(169,211)	(97,393)
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	377,267	474,660
CASH AND CASH EQUIVALENTS, END OF YEAR	$208,056	$377,267

SEE NOTES TO FINANCIAL STATEMENTS

NOTES TO FINANCIAL STATEMENTS

JUNE 30, 1993

A. Organization

Council on Library Resources, Inc. (the "Council") is a nonprofit organization incorporated under the laws of the District of Columbia in 1956 for the purpose of promoting library research.

The Council's operations are financed through unrestricted general support grants and through several restricted grants from private foundations and other sources. The Council conducts its work through directly administered projects as well as grants to and contracts with other organizations or individuals.

B. Summary Of Significant Accounting Policies

The significant accounting policies followed in the preparation of the financial statements are described below:

Basis of accounting

The financial statements of the Council have been prepared on the accrual basis.

Grant revenue

Grants to the Council are recorded as grants receivable and as deferred grant revenues when awarded. Revenues of restricted grant funds are recognized only to the extent of expenditures that satisfy the restricted purposes of these grants.

Unrestricted grant revenue is recognized as income in accordance with the allocated annual payments specified by the grantors.

Grants and contracts payable

Grants and contracts made by the Council are recorded as grants and contracts payable and as an expense at the time recipients are awarded the grants. Current period expenses are reduced for grant or contract refunds or over appropriations when received.

Cash and cash equivalents, and investments

Cash and cash equivalents consist primarily of deposits in a money market mutual fund. Cash equivalents represent investments with original maturities of 90 days or less. Investments which consist of treasury notes and treasury bills are recorded at amortized cost which approximates market. Interest which is not restricted by the related grants is recognized as unrestricted revenue.

Functional allocation of expenses

Costs of providing the various programs have been summarized on a functional basis in the accompanying financial statements. Certain indirect costs identified as support services costs have been allocated directly to programs and administration on a systematic basis. These costs primarily include salary, benefits, rent and other expenses.

Board designated funds

In prior years, the Board of Directors had designated a portion of the fund balance for various short-term projects. During 1993, amounts totalling $9,000 were transferred to the undesignated fund balance, representing a reduction in costs of the Council's Academic Library Management Intern Program.

Reclassification

Certain amounts have been reclassified in the accompanying 1992 financial statements to conform to the 1993 presentation. This primarily relates to combining the accrued interest with the investments.

C. Changes In Restricted Deferred Revenue

Balance, beginning of year	$ 337,852
Additions:	
Contract	13,000
Deductions, funds expended or refunded during the year:	
Grants	(208,721)
Balance, end of year	$ 142,131

D. Income Taxes

The Council, a private operating foundation, is exempt from federal income tax under § 501(c)(3) of the Internal Revenue Code and applicable regulations of the District of Columbia.

E. Retirement Plan

Employees are eligible for participation in the Council's defined contribution retirement annuity program ("the Plan") administered through the TIAA/CREF insurance companies. Individual contracts issued under the Plan provide for full and immediate vesting of the Council's contributions. The Council's contribution was $52,182 in fiscal year 1993.

F. Concentrations Of Credit Risk

Financial instruments which potentially subject the Council to concentrations of credit risk consist primarily of cash equivalents, investments and grants receivable.

At June 30, 1993, approximately $191,400 in cash equivalents was being held by a third party in a money market mutual fund that invests solely in United States government securities. This amount is not insured by the Federal Deposit Insurance Corporation.

Substantially all grants receivable are with large foundations. It is not the Council's policy to require collateral for these receivables. Generally, the Council has not incurred any losses in relation to these receivables.

Council on Library Resources, Inc.
SUPPLEMENTARY INFORMATION

STATEMENT OF FUNCTIONAL EXPENSES

FOR THE YEAR ENDED JUNE 30, 1993
(With Comparative Totals For 1992)

	Research	Human Resources	Access and Processing
UNRESTRICTED:			
Grants and contracts	$ –	$ 12,100	$ 76,877
Refunds and over appropriations	–	(5,221)	(40,466)
Staff and travel	–	40,910	41,954
Advisory committees, consultants and interns	–	44,764	16,699
Board expenses	–	–	–
Support services, including office expenses	–	64,287	64,287
	–	156,840	159,351
RESTRICTED:			
Grants and contracts	32,250	–	–
Refunds and over appropriations	(23,373)	–	(13)
Staff and travel	2,000	571	–
Advisory committees, consultants and interns	1,424	40,795	–
Support services, including office expenses	15,563	5	–
	27,864	41,371	(13)
	$ 27,864	$198,211	$159,338

SEE NOTES TO FINANCIAL STATEMENTS

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Economics	Infrastructure	Total Program Expenses	Administrative	Total 1993	Totals 1992
$ –	$ 53,839	$142,816	$ –	$ 142,816	$ 127,037
–	–	(45,687)	–	(45,687)	(2,685)
11,058	45,337	139,259	166,070	305,329	378,016
7,779	77,779	147,021	13,526	160,547	111,814
–	–	–	28,456	28,456	32,196
64,287	65,428	258,289	91,634	349,923	294,947
83,124	242,383	641,698	299,686	941,384	941,325
108,312	–	140,562	–	140,562	149,242
(60)	–	(23,446)	–	(23,446)	(70,586)
30,306	–	32,877	–	32,877	9,414
2,988	–	45,207	–	45,207	40,885
–	–	15,568	–	15,568	75,423
141,546	–	210,768	–	210,768	204,378
$224,670	$242,383	$852,466	$299,686	$1,152,152	$1,145,703

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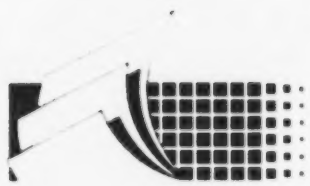

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